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Potential Health Effects of Expanding Liquor Licenses to Grocery and Convenience Stores

Kansas Health Impact Assessment Project



MAY 2014



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Potential Health Effects of Expanding Liquor Licenses to Grocery and Convenience Stores

KANSAS HEALTH IMPACT ASSESSMENT PROJECT

MAY 2014

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The report is intended to be an accessible and informative resource for Kansas policymakers as they consider allowing convenience and grocery stores to hold retail liquor licenses in Kansas. The report may inform the decision-making process by describing the potential health effects associated with this policy issue.

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Disclaimer

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The authors of this report are responsible for the facts and accuracy of the information presented. The views expressed are those of the author(s) and do not necessarily reflect the views of alcohol policy experts, the National Network of Public Health Institutes, the Health Impact Project, the Robert Wood Johnson Foundation or The Pew Charitable Trusts.





Overview: Potential Health Effects of Expanding Liquor Licenses to Grocery and Convenience Stores: Kansas Health Impact Assessment

During the legislative session of 2014, Kansas lawmakers considered amending the Kansas Liquor Control Act to allow convenience and grocery stores to hold retail liquor licenses. The Kansas Health Institute (KHI) conducted a Health Impact Assessment (HIA) to examine how this legislation might positively or negatively affect the health of Kansas residents.

An HIA is a practical tool that assesses the health impacts of policies, strategies and initiatives in sectors that aren't commonly thought of in relation to health such as transportation, employment and the environment. The overall goal of an HIA is to inform decision-makers of potential health benefits and adverse health effects of proposed actions and to support identification of appropriate policy options. In order to assess the potential health effects of expanding Kansas liquor licenses, the HIA team reviewed existing literature, analyzed state and national data and gathered stakeholder input from various groups. The assessment of health effects was guided by several research questions related to Kansas liquor law changes, including:

Research Questions

1. How could the expansion of retail liquor licenses to grocery and convenience stores affect consumption of full-strength beer, wine and spirits?
2. If changes in consumption occur, to what extent could they affect traffic accidents, driving under the influence (DUI arrests), crime, sexually transmitted diseases (STDs) and related health effects?
3. *How could the expansion of retail liquor licenses to grocery and convenience stores affect jobs, health insurance, income and related health outcomes?*
4. *How could the expansion of retail liquor licenses to grocery and convenience stores affect state and local tax revenue, funding for health-related services and related health outcomes?*

The review of existing literature revealed limited evidence related to the impacts of expansion of liquor licenses to grocery and convenience stores on jobs, health insurance, income and state and local tax revenue. As a result, *the HIA team excluded the last two questions from further assessment* but included stakeholder perspectives on the economic impacts of this legislation in the report in order to highlight the importance of these issues to community members. However, the HIA report doesn't include any findings, recommendations or projections on these topics.

The HIA assessment primarily focused on the first two research questions and the report details how this legislation could affect overall alcohol consumption, DUI arrests, alcohol-related traffic accidents and traffic mortality, crime, STDs and vulnerable populations in Kansas. Throughout the report, special attention was given to populations that could be disproportionately affected by changes to the law, including youth.

Summary of Findings and Recommendations

The proposed legislation (Substitute for House Bill 2556), stipulates that the number of retail liquor licenses (Class A — full-strength beer, wine and spirits) in Kansas will be held at the current level of 753 until 2024. Starting in 2019, about one-third of grocery and convenience stores will be eligible to receive a transferred license and sell full-strength beer (Class B) (*Figure 7, page 28*) or wine (Class C), within geographical restrictions set forth in the legislation.¹ After the license cap is removed in 2024, the number of off-premise alcohol outlets in Kansas could increase significantly up to a total of 3,015 as grocery and convenience stores would be eligible to apply for retail liquor licenses. However, this increase would depend on the number of grocery and convenience stores that apply and receive liquor licenses, as well as the number of liquor stores that transfer their licenses to grocery and convenience stores.

Although the Substitute for House Bill 2556 doesn't explicitly stipulate what type of liquor licenses grocery and convenience stores can obtain after 2024, it is understood that grocery and

convenience stores would be eligible to apply for all three types of retail liquor licenses.

Increasing the density² of off-premise alcohol outlets³ after 2024 may increase alcohol consumption. However, the level of changes in consumption will largely depend on the magnitude of an increase in the density of off-premise alcohol outlets. The evidence suggests that consumption may increase slightly for the general population and may increase more for youth. The projected changes in consumption for youth may result in an increase in alcohol-related traffic accidents and STDs. Additionally, availability of alcohol in grocery and convenience stores may increase theft of these products among youth. However, a slight increase in consumption for general population is projected to result in a small increase or no change in DUI (arrests) and alcohol-related traffic accidents. Furthermore, an increase in density of off-premise alcohol outlets and consumption may lead to some increase in violent crime (e.g., domestic violence, child abuse), and STDs.

There are vulnerable populations that may be more impacted by changes to the Kansas Liquor Control Act than others. Vulnerable populations can be defined as populations that have experienced greater obstacles to health based on their racial or ethnic group, religion, socioeconomic status, gender, mental health, cognitive, sensory, or physical disability, sexual orientation or gender identity or geographical location.⁴ For example, low-income neighborhoods generally have more outlets for alcohol beverage sales and higher rates of youth binge drinking. The HIA found that youth consumption of alcohol would likely increase under the new legislation, which

could lead to negative health outcomes for that population. To mitigate the potential negative health effects associated with the proposed changes to the Kansas Liquor Control Act, the HIA team, with input from stakeholders, developed a set of evidence-based recommendations to inform the decision-making process:

- Track changes in number and density of off-premise alcohol outlets by type (i.e., grocery, convenience stores).
- Include questions in the State Added Module of the Behavioral Risk Factor Surveillance System (BRFSS) related to where Kansans purchase and consume alcohol and the type of alcohol consumed.
- Include questions in the Communities that Care survey (CTC) to determine where Kansas youth obtain alcohol products (grocery, convenience and/or liquor stores) and the type of alcohol consumed.
- Use the KHI HIA Liquor Project “Monitoring Plan” (included in this report) to develop a robust protocol to track the impact of this legislation on relevant health indicators and costs.
- Maintain geographical restrictions on license issuance after 2024.
- Maintain limits on days and hours of alcohol sales.
- Increase sobriety checkpoints, especially in areas where there is an increased density of off-premise retail alcohol outlets.
- Publicize sobriety checkpoints throughout the state.

The full list of findings and recommendations is available in Appendix A, page 63.

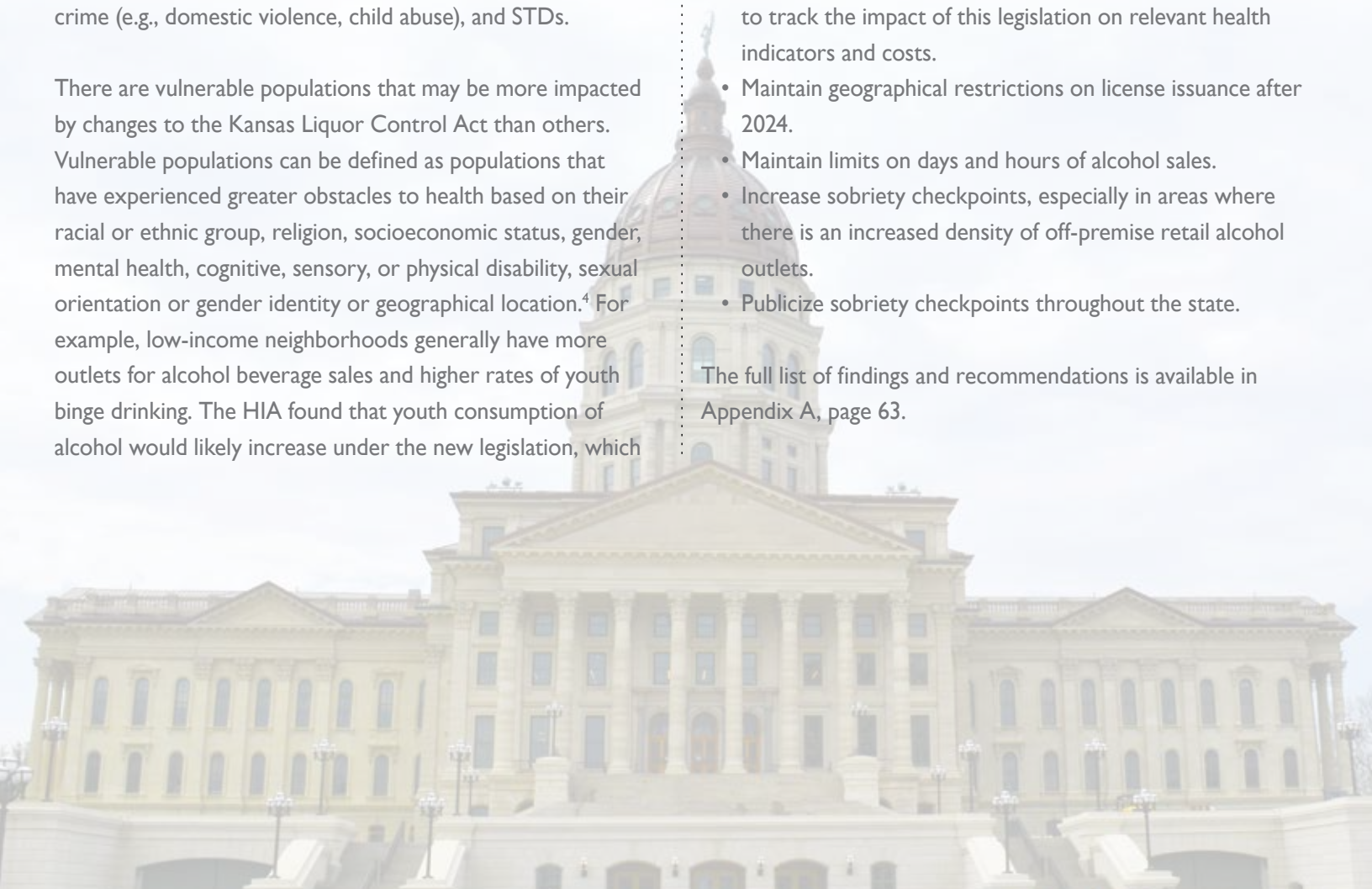


Figure 1: Summary of Health Impacts of Changes to the Kansas Liquor Control Act

Health Factor or Outcome	Literature Review	Data Analyses	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution	Vulnerable Population	Quality of Evidence
Alcohol Consumption	Increase	No effect*	Mixed	Negative	Medium	Possible	General population and youth	Individuals with substance abuse disorders, mental health conditions or low-income	**
Alcohol Consumption (Youth)	Increase	Increase*	Increase	Negative	Medium	Likely	Youth that consume alcohol	Youth, low-income youth	***
Driving Under the Influence (Arrests)	Mixed	N/A	Mixed	Mixed	Low	Possible	Individuals who received DUI and their families	Elderly, youth, children	*
Alcohol-Related Traffic Accidents	Mixed	Mixed**	Mixed	Mixed	Medium	Possible	Drivers, passengers and their families	Elderly, youth, children	***
Alcohol-Related Traffic Mortality	Mixed	Mixed**	Mixed	Mixed	Medium	Possible	Drivers, passengers and their families	Elderly, youth, children	***
Alcohol-Related Traffic Mortality (Youth Only)	Mixed	Increase**	Increase	Negative	Medium	Likely	Youth that consume alcohol and choose to drive	Youth, children	***
Crime	Increase	Mixed**	Mixed	Negative	Medium	Possible	Partners, children and general population	Elderly, children	**
Sexually Transmitted Diseases (STDs)	Increase	Increase**	N/A	Negative	Low	Possible	Sexually active individuals	Elderly, youth, infants born to mothers with STDs	***

Note: * Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets. ** Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets as well as consumption of alcohol. In instances where data analyses yielded different results regarding the relationship between the indicator and the density of off-premise alcohol outlets, and the indicator and consumption of alcohol, the effect was identified as mixed. Legend is available in Appendix B, pg. 68.

Source: KHI HIA Liquor Project, 2014.





According to 2013 U.S. Census Bureau estimates, Kansas has nearly three million residents.⁵ Most of the population identifies as non-Hispanic white (greater than 75 percent).⁶ Hispanics are the largest minority with 11 percent of Kansans identifying as Hispanic or Latino, followed by around six percent identifying as black.⁷ Based on 2012 data, slightly more than 90 percent of Kansas adults ages 25 and older have a high school degree or higher, and approximately 30 percent have a bachelor's degree or higher. Kansas is performing better in these measures, as the national averages are 86 percent and 29 percent, respectively.⁸ Fourteen percent of the Kansas population lives in poverty compared to almost 16 percent nationwide. The median annual household income in Kansas is \$50,241, slightly lower than the national median household income of \$51,371.⁹

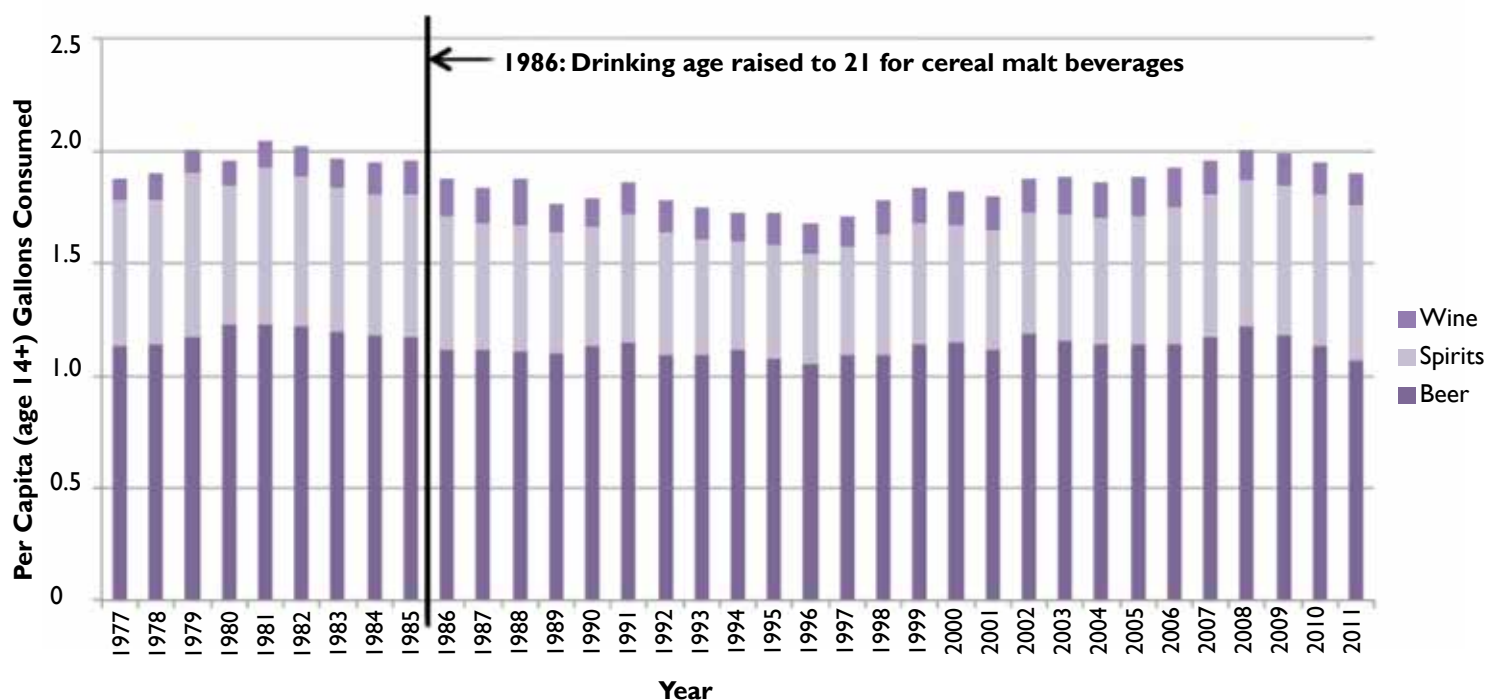
Of Kansas' 105 counties, over half are designated as rural¹⁰ or frontier¹¹ and only 16 have urban¹² or semi-urban¹³ status. This diversity of population density can make it difficult to provide access to health care. Additionally, the physician-to-population ratio in Kansas (1,380:1) is still far below many states.¹⁴ Currently, Kansas ranks near the middle of the country (27th) in terms of overall health, according to *America's Health*

Rankings, presented by the United Health Foundation.¹⁵ In terms of smoking, heart disease, diabetes, infant mortality and premature death, Kansas ranks near the middle. However, Kansas ranks among the top twenty states for low prevalence of binge drinking among adults.

Alcohol Consumption in Kansas

In 2011, Kansas age 14 and older consumed on average 1.9 gallons of alcohol per capita.¹⁶ This rate is among the lowest in the nation (47th). Historically, Kansas has had relatively low and stable levels of alcohol consumption compared to the rest of the nation. *Figure 2* shows the per capita gallons consumed between 1977 and 2011. Peak consumption occurred in 1981, with a smaller peak in 2008. Since then, consumption has decreased slightly. In 1949, regular-strength (a beverage containing more than 3.2 percent alcohol by weight) beer, wine and spirits became legalized and the drinking age was set at 21 years of age for these products. The drinking age for cereal malt beverage (CMB), (3.2 percent strength of beer or lower) was set at 18 years of age. A slight decrease in consumption was observed following 1986 when the drinking age for CMB was raised from 18 to 21 years of age.

Figure 2. Per Capita (Age 14+) Gallons of Alcohol Consumed Annually in Kansas, 1977–2011



Source: National Institute of Alcoholism and Alcohol Abuse, 1977–2011.

History of Liquor Laws in Kansas

The sale of alcoholic beverages has long been a controversial issue in Kansas. Historically, the state prohibited the sale and possession of all liquor until 1917. Alcohol sales remained restricted until 1937 when the Legislature authorized the sale of cereal malt beverage (CMB)¹⁷ for consumption both on¹⁸ and off-premise. Currently, groceries and convenience stores in Kansas are all allowed to carry CMB. Following the passage of the constitutional amendment authorizing the Legislature to regulate, license, and tax the manufacture and sale of intoxicating liquor, the Legislature enacted the Kansas Liquor Control Act in 1949. During the next 65 years, Kansas relaxed liquor laws, but still remained among the most restrictive in the nation.

Regulating the Liquor Industry

In Kansas, the Division of Alcohol Beverage Control (ABC) of the Kansas Department of Revenue has the primary responsibility for overseeing and enforcing Kansas liquor laws and issuing licenses and permits for the manufacture, distribution and sale of alcoholic liquor. Although the ABC has considerable regulatory authority, county and city governments

also have some role in licensing decisions (e.g., closing hours, recommendations for retail liquor license issuance).

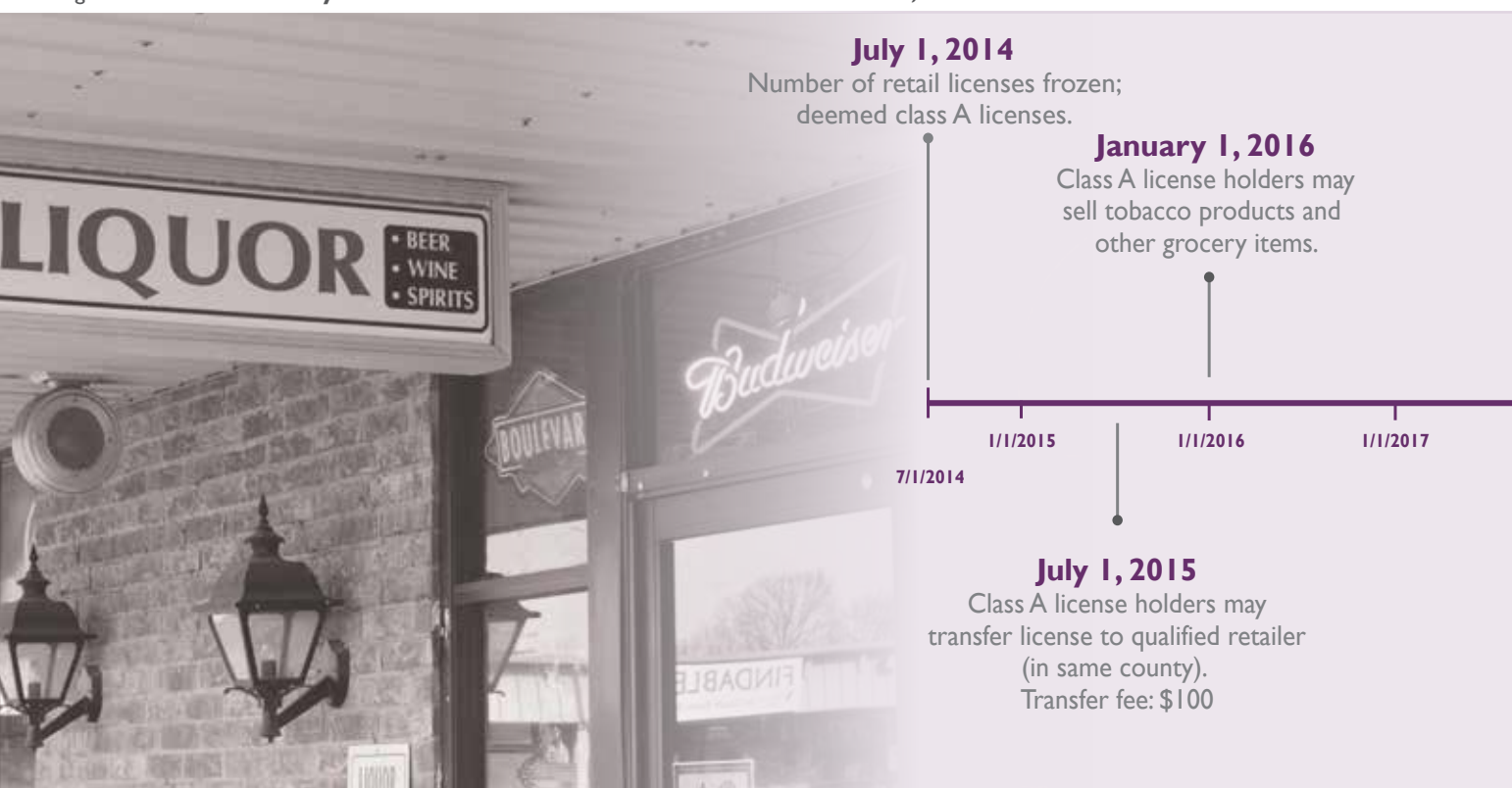
The Kansas 2014 Legislative Session: Substitute for House Bill 2556

The Substitute for House Bill 2556 recommends changes in the licensing process for liquor retailers under the Kansas Liquor Control Act and defines who is eligible to hold retail liquor licenses. Specifically, the bill would permit grocery and convenience stores to hold retail liquor licenses. The bill also sets specific requirements for the issuance of retailer Class A, B, and C licenses (Figure 3).

Substitute for House Bill 2556 would freeze the number of liquor licenses on July 1, 2014, until June 30, 2024. The current liquor licenses would be deemed Class A licenses, and these establishments would be eligible to sell full-strength beer, wine, and spirits.

On and after July 1, 2015, any Class A license may be transferred to another person eligible to receive such license. The license must remain in the country of origin. In effect, this

Figure 3. Timeline of Key Provisions in 2014 Substitute for House Bill 2556, 2014

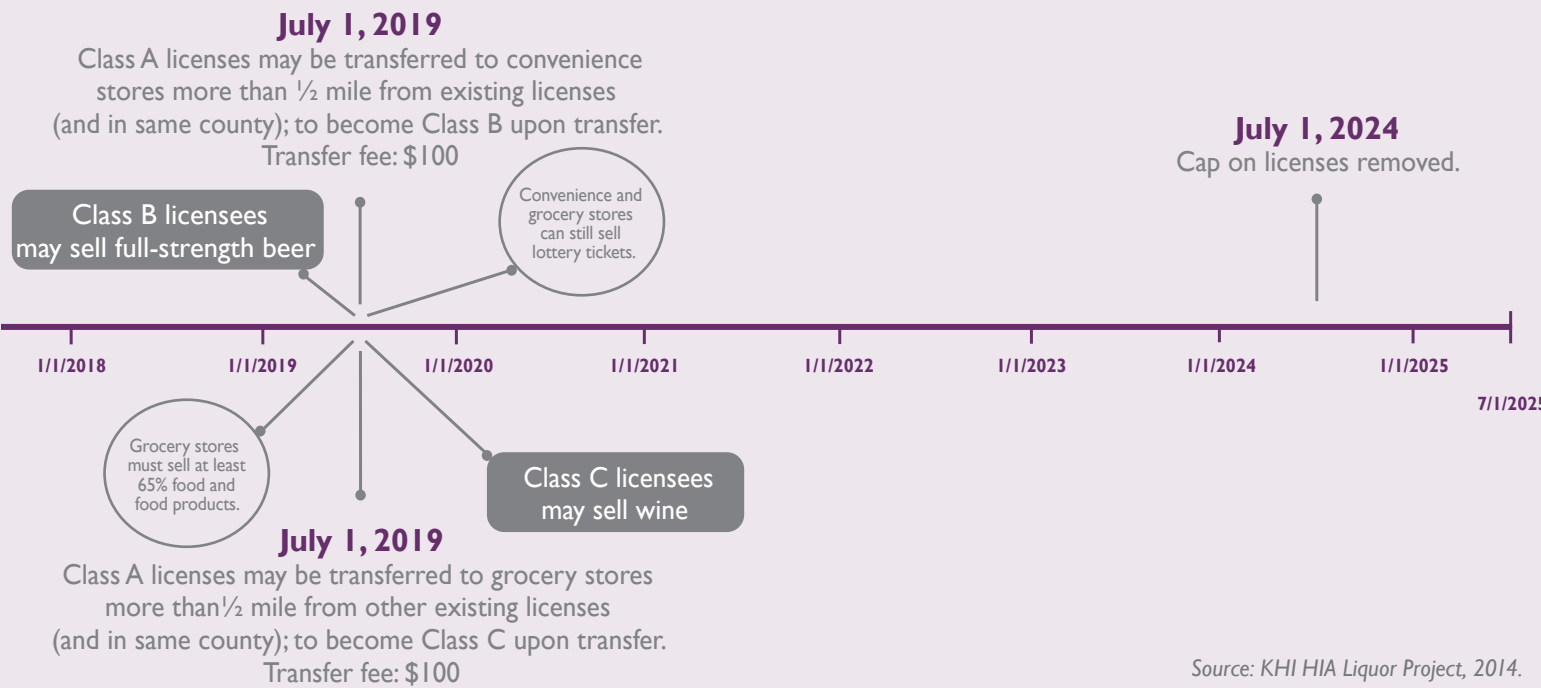


would allow a liquor store to transfer its license to a new liquor store. The cost for a transferred license is currently set at 100 dollars. On and after January 1, 2016, any Class A licensee will be eligible to sell tobacco products and grocery items (such as cocktail mixers, or other grocery items of their choosing) if the display space for such items does not exceed 15 percent of the total display space of all products sold.

On and after July 1, 2019, any Class A license may be transferred to a convenience store, as long as there are no other retail alcohol outlets within one-half mile of the convenience store and the transferee is in the same county. Upon transfer, the license is deemed a Class B license and is qualified to sell full-strength beer, but not wine or spirits. The fee to transfer a license is \$100. Class B retailers may continue to sell lottery tickets in accordance with the Kansas Lottery Act. Class B retailers may also distribute advertising materials to the public, store full-strength beer in refrigerators, and sell any other legal good or service on the licensed premises.

On and after July 1, 2019, any Class A license may also be transferred to a grocery store, as long as there are no other retail alcohol outlets within one-half mile of the grocery store and the transferee is in the same county. A grocery store must have at least 65 percent of gross sales from food and food products. Upon transfer, the license is deemed a Class C license and is qualified to sell wine but not full-strength beer or spirits. The fee to transfer a license is \$100. Class C retailers may continue to sell lottery tickets in accordance with the Kansas Lottery Act. Class C retailers may also distribute advertising materials to the public, store wine in refrigerators, and sell any other legal good or service on the licensed premises.

On and after July 1, 2024, the cap on the number of Class A licenses is lifted and the geographical restrictions are removed. Previously obtained Class B and C licenses do not automatically convert to Class A licenses. However, it is understood that grocery and convenience stores would be eligible to apply for all three types of retail liquor licenses after the cap is removed.



Source: KHI HIA Liquor Project, 2014.



The Hayden Office Building, home of the Kansas Health Institute, Topeka, Kansas



The HIA process, as defined by the National Research Council,¹⁹ includes six main steps:

1. **Screening:** Identify upcoming policy and determine the HIA purpose and value.
2. **Scoping:** Identify potential health indicators and research methods.
3. **Assessment:** Analyze identified potential health impacts.
4. **Recommendations:** Determine options to mitigate identified potential negative health impacts and maximize identified potential positive health impacts.
5. **Reporting:** Share findings with stakeholders, including decision-makers.
6. **Monitoring and Evaluation:** Monitor/evaluate actual future health impacts resulting from policy changes, and assess HIA process, results and lessons learned.

To date, the KHI Liquor HIA Project has included the first five steps. A monitoring plan has also been prepared, but implementation will depend on availability of future resources. Due to time and resource constraints, a formal evaluation of the HIA process and outcomes was not completed for this particular project.

Step 1 — Screening

Screening determines whether an HIA is feasible, timely, and would add value to the decision-making process.

In 2013, the Kansas Health Institute conducted an environmental scan to identify a state-level policy that could

benefit from a Health Impact Assessment (HIA). The environmental scan process included a review of bills introduced during the 2012 and 2013 legislative sessions, media coverage analysis and conversations with stakeholders and decision-makers. Based upon this work, the Kansas HIA team decided to conduct an HIA to inform the upcoming legislation that proposed changes to the Kansas Liquor Control Act. The proposed policy was selected as an HIA project due to the opportunity to inform the decision-making process, the number, variety and size of potential health impacts, and the relevance to the community.

The KHI Liquor HIA Project aimed to broaden the scope of the policy discussion to include the consideration of impacts on health. During the 2014 Legislative session, the topic received statewide attention through legislative hearings and the media, and the conversation was primarily centered around economic impacts, including effects on local jobs and taxes. However, while changes in economic status resulting from changes in employment and tax revenues can have an influence on health, there are other potential health effects related to changes in density of alcohol outlets that were not being considered in discussions around the bill. Thus, the HIA focused on ensuring that health issues related to changes in density of off-premise alcohol outlets received consideration, as they could result in various effects and associated health impacts, including behaviors (e.g., alcohol consumption, DUIs, crime) and health outcomes (e.g., injuries, morbidity, mortality).

Step 2 — Scoping

Scoping determines what health impacts are going to be studied, which populations will be included in the study and the methods that will be used to conduct the HIA.

The potential areas of focus (health factors and outcomes) have been identified in collaboration with key stakeholders including grocery, convenience and liquor store employees, public health officials, family organizations and prevention centers that promote healthy youth behaviors.

At the beginning of the scoping process, the HIA team conducted key informant interviews with 17 stakeholders who had been actively engaged in discussions around the issue. Stakeholders were selected by reviewing legislative testimony given on the subject matter in past years. The HIA team ensured those interviewed held varying viewpoints and represented diverse sectors, as described above. The purpose of the interviews was to capture stakeholder perspectives regarding potential positive and negative health impacts of the legislation if it were to pass. Interviews were semi-structured in nature, with occasional prompts or clarifying questions asked when applicable. They were conducted in person and via phone. Each interview was analyzed according to common themes and reported in the aggregate to maintain confidentiality. (The interview questionnaire and informed consent form are located in Appendix F, page 74.) Using stakeholder input and preliminary literature review findings, the

HIA team identified several issues for further research including the effects of a change in density of off-premise alcohol outlets on consumption of wine, full-strength beer and spirits, as well as potential downstream impacts on associated factors (e.g., traffic accidents, crime) and health outcomes (e.g., injury, mortality, STDs). Several potential factors such as changes in business revenue, employment and enforcement were excluded from further assessment due to limited evidence available.

Step 3 — Assessment

The assessment step includes analyses of potential health impacts.

This study used multiple methods — including a review of relevant literature, interviews with stakeholders, and secondary data analyses — to identify and estimate potential health impacts of the proposed changes to the Kansas Liquor Control Act. Secondary data analyses were based on data provided by federal, state and local agencies including density of off-premise alcohol outlets, traffic accidents, alcohol consumption, crime, and unintentional injuries, among others. In order to assess the identified indicators, the HIA team examined correlations between off-premise outlet density and associated factors and health outcomes.

For each indicator, data analyses were reported at the state level (comparisons between counties). Data were collected for all Kansas counties, where available. However, some analyses and related figures do not include all counties due to a lack of available data. For example, availability of tax revenue data limited analyses of several indicators to the 35 counties where tax revenue data were reported. For some indicators, data analyses were reported at the national level (comparisons between states). In these cases, data were collected for all 50 states and Washington, D.C. For more information about indicators examined and data sources, please see Appendix E, page 72.

Key to estimating potential health impacts of each issue was the projection of changes in alcohol consumption for the general population and for youth. A strong positive correlation led to

the projection of an increase for that indicator. The projected changes in alcohol consumption served as the basis for many of the subsequent health estimates.

Additionally, the HIA team used mapping methods to estimate the number of grocery and convenience stores that would be eligible to sell wine, full-strength beer and spirits based upon the geographical restrictions set forth in the legislation. These maps provide a picture of the current liquor licenses in the state and the grocery and convenience stores that may be eligible to receive a transferred license if the law was to pass. The maps were created using ArcGIS 10.2 mapping software and are based on data from the Census County Business Patterns, Kansas ABC and the USDA Food Environment Atlas.

There are tables summarizing findings throughout the report. The tables have a full legend (found in Appendix B, page 68), which depicts expected health impacts, magnitude, likelihood of impacts and the quality of evidence of reviewed literature.

Step 4 — Recommendations

Recommendations are a way to suggest actions that can enhance potential positive health effects and mitigate potential negative health effects related to the proposed policy.

The recommendations were developed by the HIA team based on literature review and expert opinion. The recommendations were included in the final report if they met the following criteria:

1. **Responsive to predicted impacts** — To what extent does the recommendation align with each finding?
2. **Specific and actionable** — Does the recommendation include specific steps, details and actionable measures?
3. **Feasible** — How realistic is it to implement this recommendation?
4. **Evidence-based and effective** — How much evidence is there to support the recommendation?
5. **Vulnerable populations** — Does the recommendation address the needs of vulnerable populations?

The final list includes 30 recommendations. The HIA team aligned each recommendation with relevant finding(s) and described available evidence and rationale for these recommendations.

Step 5 — Reporting

Reporting includes the distribution of findings to decision-makers, stakeholders and community members.

The HIA results are summarized in this report, which is designed primarily for policymakers and stakeholders in various sectors, including retail (e.g., grocery, convenience and liquor stores); business (e.g., banks), social services (e.g., prevention centers) and others.

For example, the report findings and recommendations will be shared in various ways (e.g., presentations, in-person discussions, printed materials) with members of relevant legislative committees and participants of key-informant interviews.

Step 6 — Monitoring

Monitoring is an important step of HIAs because it helps determine actual future health impacts resulting from policy changes and assesses the HIA process, results and lessons learned.

The HIA team developed a monitoring plan in order to measure the outcomes of the decision and track the potential effect(s) of the final decision on health and/or the determinants of health (i.e. crime, etc.). The plan (described in *Figure 4*, page 20) includes measures which could be tracked if the proposed legislation passes. Additionally, the plan suggests agencies that can monitor changes and suggest appropriate actions for state and local policymakers to take to mitigate potential negative health effects.

Limitations

As with any health impact assessment or applied research project, there are limitations that must be taken into account. One of the core principles of HIA is community engagement.

The HIA offered stakeholders a mechanism to provide input via key-informant interviews. Although the HIA captured the perspectives of different stakeholders, some sectors of the community might not have been represented. In addition, this HIA utilizes both peer-reviewed and grey (not peer-reviewed) literature, although the rigor of research studies was taken into consideration when making projections about potential impacts. It is important to note that limitations exist within published research concerning how the sale of alcohol products in grocery and convenience stores affects consumption, as the majority of research primarily focuses on the density of liquor stores and consumption. For this reason, findings from these studies might not be fully generalizable to grocery and convenience stores due to their differing nature (e.g. customer base, product lines). As with any literature review, there may also be studies that were missing from the analyses.

Finally, this report included analyses of state and national data. The HIA team conducted an ecological study to examine the potential relationships between density of off-premise alcohol outlets and associated factors and health outcomes. An ecological study is an observational study which analyzes data at the population or group level rather than at the individual level. In general, ecological study designs have more limitations in comparison to individual study designs. For example, the nature of the analyses limits the degree to which results can be used to draw conclusions about causal relationships, as there may be underlying factors that were not considered in the model. For instance, the HIA examined the correlation between the density of liquor outlets and STDs. Although density and STDs were correlated, indicating a relationship, the HIA does not imply that the increase in STDs was only due to alcohol outlet density because of many other factors that influence STD rates.

Additionally, ecological studies only capture and describe the potential change in behavior or impacts on health status at a group level. Despite these and other limitations, ecological study designs can provide potential insights into the complex association between population-level changes in access to alcohol, consumption and related health outcomes.

Figure 4. HIA Monitoring Plan for Sale of Wine, Full-Strength Beer and Spirits in Grocery and Convenience Stores

INDICATOR	MONITORING AGENCY	DATA SOURCE	TIMING
Density of off-premise alcohol outlets	Alcoholic Beverage Control, Kansas Department of Revenue	Kansas liquor licenses; U.S. Census Bureau county-level population estimates	Annual (Beginning in 2019)
Alcohol use and abuse	Kansas Department of Health and Environment	Behavioral Risk Factor Surveillance System	Annual (Beginning in 2019)
	Kansas Department of Revenue	Excise and enforcement taxes	Bi-Annual (Beginning in 2019)
Alcohol-related motor vehicle injuries and fatalities	Kansas Department of Transportation	Vehicle accident data	Annual (Beginning in 2019)
	Kansas Department of Health and Environment	Behavioral Risk Factor Surveillance System	
Violent crime	Kansas Bureau of Investigation	Violence crime statistics	Annual (Beginning in 2019)
Sexually transmitted disease (STDs)	Kansas Department of Health and Environment	Kansas STD statistics	Annual (Beginning in 2019)
Domestic violence	Kansas Bureau of Investigation	Domestic violence data	Annual (Beginning in 2019)
Child abuse and neglect	Kansas Department of Children and Families	Substantiated child abuse and neglect data	Annual (Beginning in 2019)
Unemployment rate	Kansas Department of Labor, Bureau of Labor Statistics (BLS)	Local Area Unemployment Statistics	Annual (Beginning in 2019)
Health care costs of alcohol- related injuries	Kansas Department of Transportation	Vehicle accident data	Annual (Beginning in 2019)
	Kansas Department of Health and Environment	Kansas Health Insurance Information System	
Health care costs of alcohol- related fatalities	Kansas Department of Transportation	Vehicle accident data	Annual (Beginning in 2019)
	Kansas Department of Health and Environment	Kansas Health Insurance Information System	

Note: If the legislation passes, the magnitude of projected changes will be limited prior to 2024, when the cap on new retail alcohol licensing is lifted. However, it will be important to start assessing changes in consumption and related health factors (e.g., crime) and outcomes (e.g., injury) beginning in 2019. At this time, grocery and convenience stores may become Class B or C license holders.

Source: KHI HIA Liquor Project, 2014.





The HIA team created a pathway diagram, shown in *Figure 5*, to provide the visual links between the proposed legislation and the resulting potential health effects. The diagram illustrates indicators, upstream and downstream impacts, and health outcomes. An indicator is a direct change that may happen due to the legislation. These indicators may then lead to impacts that can be considered either more “upstream” or “downstream,” depending on how directly they are

linked to the ultimate health outcome. Upstream factors are likely to be further removed from health outcomes than downstream factors. For example, (Box 1, *Figure 5*) indicates a change in the number of alcohol outlets could lead to a change in how people access liquor (Box 3). Change in access to alcohol could lead to a change in consumption (Box 4) which could in turn impact driving under the influence (Box 9), which could lead to a change in the number of deaths or injuries (Box 16).

Figure 5. **Pathway Diagram: How Changes in Density of Off-Premise Alcohol Outlets May Affect Health**

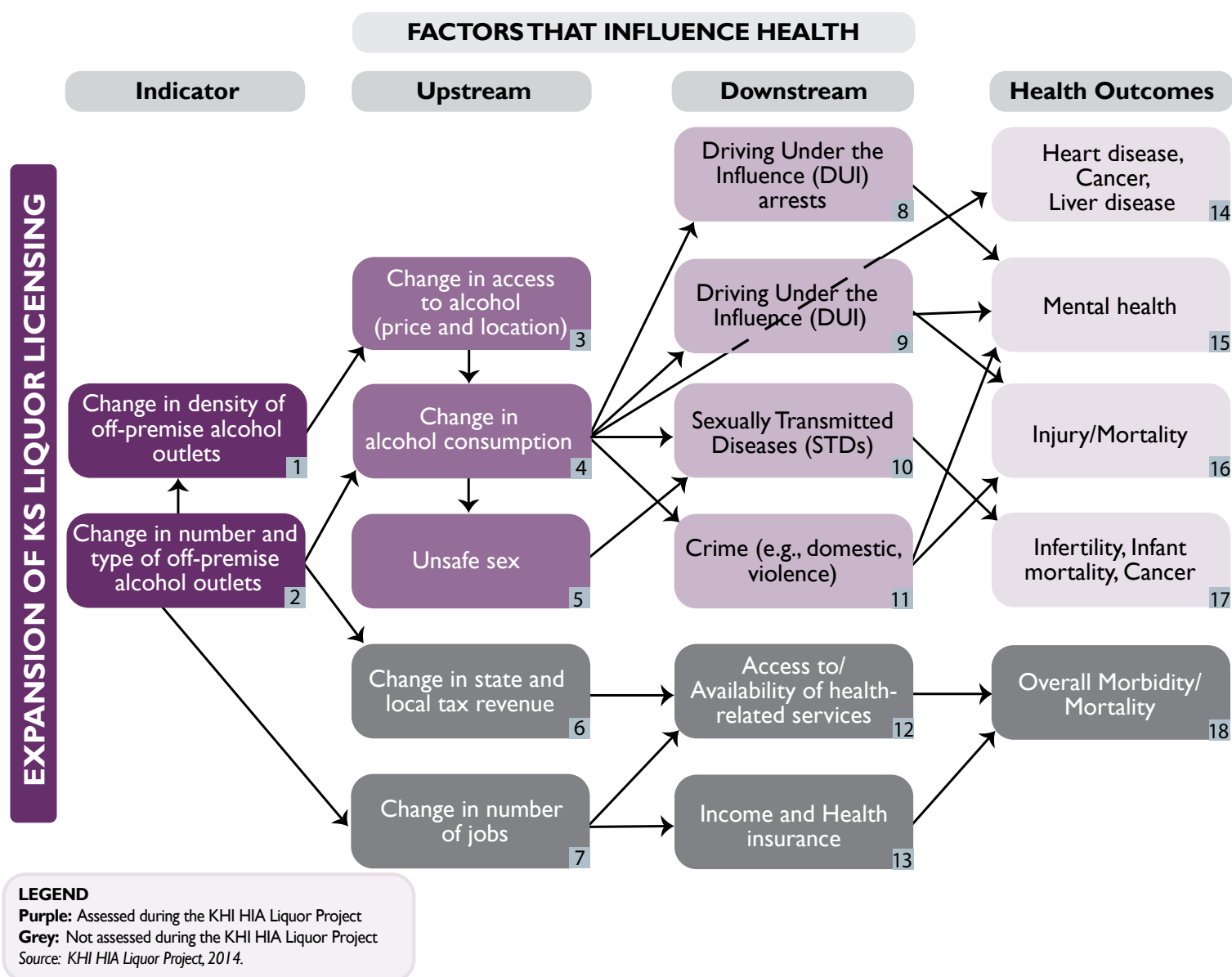
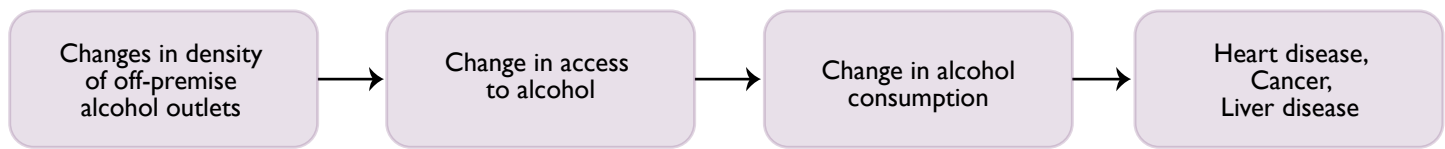






Figure 6: **Pathway Diagram: How Changes in Density of Alcohol Outlets May Affect Consumption of Alcohol**



Source: KHI HIA Liquor Project, 2014.

Key Findings

- Changes in liquor licensing regulations may increase the density of off-premise alcohol outlets after 2024.
- Increase in density of off-premise alcohol outlets may result in lower alcohol prices. Decrease in the price of alcohol has been shown to increase consumption.
- Increased density of off-premise alcohol outlets may lead to some increase in alcohol consumption for the general population. However, youth consumption is projected to increase substantially.
- An increase in consumption could increase the risk of heart disease, liver disease and cancer for Kansans. The extent of these risks would depend upon the level of increased consumption.

Key Recommendations

- Track changes in number and density of off-premise alcohol outlets by type of outlets (grocery, convenience and liquor stores).
- Include questions in the State Added Module of the Behavioral Risk Factor Surveillance System (BRFSS) related to where Kansans purchase and consume alcohol and the type of alcohol consumed.
- Maintain geographical restrictions on license issuance after 2024.
- Maintain limits on days and hours of alcohol sales.
- Increase or maintain the price of alcohol products.

Alcohol Consumption and Health

In the years 2006 to 2010, there was an average of more than 700 deaths annually in Kansas attributed to excessive alcohol use.²⁰ Nationwide in 2009, around 3.5 percent of all cancer deaths were attributed to alcohol use.²¹ Excessive drinking is also tied to heart disease and stroke.²² The adverse effects of alcohol that are not directly related to health — drunk driving, injury, violent behavior and others — result primarily from excessive alcohol consumption,²³ including both chronic health effects of alcohol and acute causes such as motor-vehicle crashes.

The pathway between moderate drinking and health is not as quantifiable. Both positive and negative outcomes have been tied to moderate drinking, which is defined as one standard drink per day for women and up to two drinks for men.²⁴

Standard drink sizes are defined in *Figure 7*, page 28. Alcohol researchers have recently begun to estimate differences between excessive and moderate alcohol intake including the study on U.S. cancer deaths attributed to alcohol use discussed earlier. This study found that 3.5 percent of cancer deaths were due to alcohol use, and about 30 percent of the number of alcohol-attributable cancer deaths occurred in people drinking less than 0.7 ounces of alcohol per day.²⁵ Another study found that breast cancer was linked to regular alcohol consumption at an even lower level of consumption (around one drink per day or 0.5 ounces of alcohol).²⁶ Moderate consumption of alcohol has been shown to be protective against adverse cardiovascular events, although this effect can be nulled by excessive drinking. One study found that regular, moderate consumption of alcohol (1–2 standard drinks) reduced the risk of heart disease by 30–35 percent.²⁷

What We Learned From the Literature

Literature suggests that the impact of alcohol outlet density on alcohol consumption lacks consensus but overall findings support an increase in population-level consumption. Much of the literature does not separate on- and off-premise liquor outlets, which makes it difficult to interpret through the lens of the proposed Kansas legislation. This is compounded by the fact that off-premise studies rarely stratify findings by type of store, so determining how an increase in grocery or convenience stores selling alcohol would impact consumption is not easily accomplished.

Studies that did not distinguish between on- and off-premise outlets found that increased outlet density corresponded with increased overall alcohol consumption.^{28 29 30} Articles that looked specifically at off-premise outlets found that there is an increase in consumption corresponding to increases in outlet density, although the results were sometimes mixed.^{31 32 33} There were very few articles that looked specifically at grocery and convenience stores.³⁴ One study from Finland looked at these store types and found that there was an increase in consumption among women, but not men, related to the sale of alcohol at grocery and convenience stores. Another recent study examined states that allowed different levels of alcohol in their grocery stores (i.e., beer alone, beer with wine, and beer, wine and spirits). The research found that states with increased alcohol availability led to decreased alcohol prices and increased consumption.³⁵ An older study from New Zealand found that allowing wine sales in grocery stores increased the total wine sales by 17 percent.³⁶ This result was not reflected in an older study from Canada that found that wine introduction in grocery stores had no impact on overall wine sales.³⁷

The *Guide to Community Preventive Services Taskforce* reviews literature to identify effective strategies for improving public health. They reviewed the effect of increased alcohol outlet density due to regulatory changes and found that increased alcohol outlet density was associated with excessive alcohol consumption.³⁸ The *Guide's* review also found that after privatization, there was a 44.4 percent median increase in per capita sales on privatized alcoholic beverages. During the same timeframe, non-privatized sales decreased by around 2.2 percent.

There is general consensus in the literature that by increasing access to alcohol there will be an increase in alcohol consumption. Increased density of alcohol outlets resulted in decrease in prices. When alcohol prices decrease, consumption has been shown to increase.^{39 40} The *Guide* reviewed the effect of increasing alcohol excise taxes in order to increase alcohol price, and found strong evidence that increased prices decreased consumption, particularly among youth.⁴¹ In Kansas, competition could be a factor in alcohol price reductions.⁴² Another way to increase access is through expansion of hours for alcohol sales. The *Guide* found that an increase in sales hours was shown to increase consumption at the population level if there was at least a two-hour increase.⁴³ These results add additional evidence that more availability of alcohol could lead to an increase in consumption in Kansas.

Figure 7. **Standard Drink Size in the United States**

Standard drink size is 0.6 ounces (14.0 grams) of pure alcohol. This amount of alcohol is found in:

8.0 ounces	Malt liquor (beer)
5.0 ounces	Wine
1.5 ounces	Distilled spirits or liquor (gin, rum, vodka, whiskey)

Note: Kansas sells two “strengths” of beer. Currently, beer below 3.2 percent alcohol, known as cereal malt beverage, is sold in grocery stores or convenience stores. Full-strength beer, anything over 3.2 percent alcohol by weight, can only be sold in liquor stores.

Source: Centers for Disease Control and Prevention (CDC) *Frequently Asked Questions on Alcohol and Public Health*.

What We Learned From Data

According to the Kansas HIA Liquor Project's analyses of Kansas-specific data, the proposed legislation would change the current retail liquor landscape in the state. There are currently 753 off-premise retail licenses in Kansas, and this level will be held until 2024.⁴⁴ Additionally, these licenses may be utilized for the sale of beer only in convenience stores, or for wine only in grocery stores until 2024. Grocery and convenience stores that accept a transferred license must be located at least one-half mile from another licensed retail alcohol outlet. Currently, about 33 percent of the grocery and convenience stores in Kansas are outside

one-half mile radius from an existing liquor store and would be eligible to sell beer or wine based on the geographical restrictions set forth in the legislation. Maps that illustrate the number of grocery and convenience stores that would be eligible to sell wine or beer prior to 2024 are available in Appendix C, pages 69–70.

Under Substitute for House Bill 2556, the number of retail liquor licenses in Kansas will be held at the current level. Starting in 2019, about one-third of grocery and convenience stores will be eligible to receive a transferred license and sell full-strength beer or wine, within geographical restrictions. After the license cap is removed in 2024, the number of retail alcohol outlets in Kansas could increase significantly up to a total of 3,015. However, this increase would depend on the number of grocery and

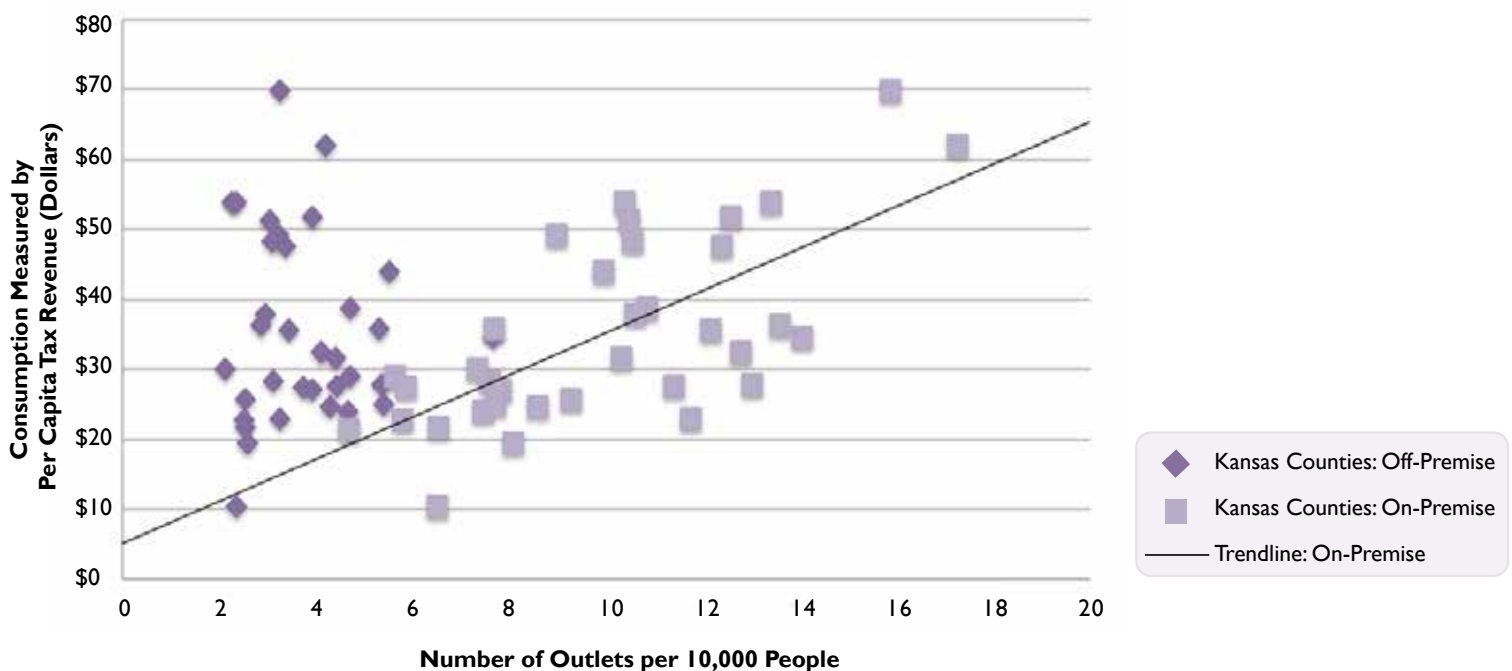
convenience stores that apply and receive liquor licenses, as well as the number of liquor stores that transfer their licenses to grocery and convenience stores.

An increase in the number of alcohol outlets in each county would increase the density of alcohol outlets per capita. Currently, liquor store density in Kansas ranges from 0–14 stores per 10,000 people (urban range 2–3; non-urban range 0–14). After 2024, the density of off-premise alcohol outlets could range from 7–57 stores per 10,000 people (urban range 7–10, non-urban range 8–57), based on the number of existing grocery, convenience, and liquor stores.^{45 46}

KHI analyses found that consumption, as measured by alcohol excise and enforcement tax revenues, is positively correlated ($P<.01$)⁴⁷ with on-premise liquor

access (such as restaurants and bars) but not with off-premise liquor or with any cereal malt beverage access (Figure 8). Additionally, the percent of adults who self-report as binge drinkers,⁴⁸ as measured by the Behavior Risk Factor Surveillance System (BRFSS), is positively correlated ($p<.01$) with on-premise liquor access but not with off-premise liquor nor with any cereal malt beverage outlet density. These results show that on-premise drinking locations are more closely associated with levels of consumption. Although off-premise alcohol outlet density could increase due to this legislation, analyses of Kansas-specific data did not find that consumption would increase due to this change.

Figure 8: Comparison of Kansas Off- and On-Premise Alcohol Outlets, 2013, to Kansas Consumption, 2012



Note: Data graphed represents 35 Kansas counties. Consumption data measured by excise and enforcement taxes were not reported for all counties. Source: KHI Analysis of data from the Kansas Department of Revenue (2012), and Kansas Division of Alcoholic Beverage Control (2013).

What We Learned From Stakeholders

When asked about the effects of the legislation, proponents, opponents and neutral stakeholders all agreed that access to alcohol would increase if this legislation is approved, but there was not consensus on how the increase in access could impact consumption. Opponents of the legislation and neutral stakeholders believed that consumption levels would go up due to an increase in opportunities and outlets from which to obtain alcohol. They suggested that youth consumption will likely increase as they are particularly susceptible to potential changes in access to alcohol. Proponents pointed out that historically, Kansas consumption has remained mostly static. They suggested that a change in the number of outlets will not increase consumption; rather, it will shift where people choose to purchase some of their alcohol.

Conclusion: Health Impacts for Kansas

The literature review and data analyses provide conflicting conclusions on how changes in alcohol outlet density would

affect alcohol consumption. Reports from the literature suggest increased off-premise alcohol outlet density would lead to increased consumption. However, analyses of Kansas-specific data found that the density of on-premise alcohol sales outlets was correlated with consumption levels, but off-premise outlet density was not. Stakeholders agreed that access to alcohol would increase, but views on how that would impact consumption were mixed. Proponents of the legislation felt that consumers may purchase some of their alcohol from grocery and convenience stores rather than liquor stores. Opponents felt that there would be an increase in overall consumption, which could potentially lead to negative health impacts. Based on literature review and data analyses, increase in density of alcohol outlets is likely to result in some increase in alcohol consumption for the general population (Figure 9). However, youth consumption is projected to increase substantially. An increase in consumption could increase the risk of heart disease, liver disease and cancer. The extent of these risks would depend upon the level of increased consumption.

“For the most part, people will be buying alcohol with groceries. People, and especially women, want that convenience.”

– Large Grocery Store

“Health impacts from consuming alcohol are mixed. Drinking wine could be beneficial, but drinking too much with more outlets could be bad.”

– Academic Researcher

Figure 9: Impact of Density of Off-Premise Alcohol Outlets on Consumption and Associated Health Outcomes

Health Factor or Outcome	Literature Review	Data Analyses	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution	Vulnerable Population	Quality of Evidence
Alcohol Consumption	Increase	No effect*	Mixed	Negative	Medium	Possible	General population and youth	Individuals with substance abuse disorders, mental health conditions or low-income	**
Alcohol Consumption (Youth)	Increase	Increase*	Increase	Negative	Medium	Likely	Youth that consume alcohol	Youth, low-income youth	***

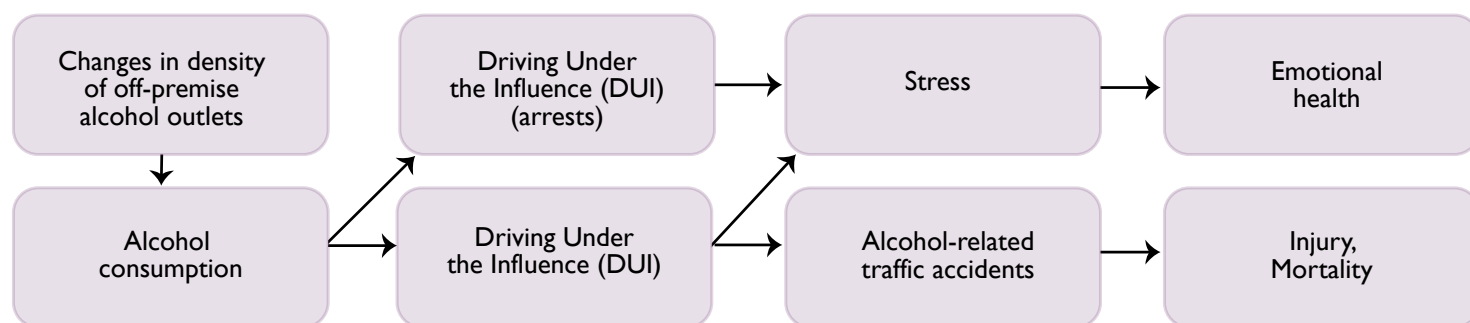
Note: * Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets. ** Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets as well as consumption of alcohol. In instances where data analyses yielded different results regarding the relationship between the indicator and the density of off-premise alcohol outlets, and the indicator and consumption of alcohol, the effect was identified as mixed. Legend is available in Appendix B, pg. 68.

Source: KHI HIA Liquor Project, 2014.





Figure 10. Pathway Diagram: How Changes in Density of Off-Premise Alcohol Outlets and Consumption May Affect DUI (Arrests) and Traffic Accidents



Source: KHI HIA Liquor Project, 2014.

Key Findings

- An increase in the density of alcohol outlets may result in a small increase or no change in DUI arrests and/or alcohol-related traffic accidents and related mortality for the general population.
- An increase in alcohol consumption for youth could result in more DUI arrests and alcohol-related vehicle accidents and deaths.

Key Recommendations

- Increase sobriety checkpoints, especially in areas where there is an increased density of off-premise alcohol outlets.
- Publicize sobriety checkpoints throughout the state.

Driving Under the Influence DUI (Arrests), Alcohol-Related Vehicle Accidents and Health

According to the 2012 Kansas Department of Transportation Safety Report, between 2003 and 2012 there were over 1,000 deaths from alcohol-related crashes (Figure 11, pg. 34).⁴⁹ Between 2003 and 2012, 27.9 percent of all traffic fatalities involved alcohol.⁵⁰ There were around 20 fatal crashes for drivers under 21 years of age between 2007 and 2011.⁵¹ As mentioned above, unintentional injury is the leading cause of death in people age 1-45, with motor vehicle accidents accounting for 25 to 50 percent of the deaths.⁵²

What We Learned From the Literature

According to recent data (2010) from the Centers for Disease Control and Prevention, the leading cause of death for individuals age 1-44 is unintentional injury.⁵³ Unintentional motor vehicle accidents were the number one unintentional injury death for people age 5-24 and the second leading cause of death for people age 1-4 and 25-64.⁵⁴ Of these unintentional motor vehicle deaths, almost one-third (31 percent) involved an alcohol-impaired driver.⁵⁵

Published studies show mixed results on how increased density of off-premise alcohol outlets affects rates of DUI and traffic injuries. A study that looked at 49 states' alcohol control laws found that although there were protective benefits (i.e., decreased DUIs) of these laws, the vast majority of the identified effects were not statistically significant (meaning that these results may have been due to chance).⁵⁶ A 2011 study performed in Texas found that DUI arrests decreased with increased alcohol outlet availability; the study also found that the number of alcohol-related accidents decreased with increased alcohol outlet density.⁵⁷ This relationship may be due to a shorter amount of time driving between the outlet and destination, which means less chance of an accident or interception by law enforcement. Two California studies found a positive association between liquor outlet density and self-reported injury (e.g., sprains, fractures, cuts)⁵⁸ and hospital discharge related to motor vehicle crash injury.⁵⁹ A study in New Mexico saw a significant positive correlation between alcohol-related crashes and crash fatalities and liquor outlet density.⁶⁰ In Michigan, the number of alcohol-related motor vehicle crashes were greater in areas with less population

Figure 11. Kansas Traffic Safety Statistics, 2003–2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	TOTAL 2003–2012
Total Crashes	75,009	74,117	68,739	65,507	70,664	65,913	61,176	60,478	59,860	57,034	658,497
Crashes Alcohol-Related	3,445	3,328	3,069	3,222	3,296	3,370	3,121	2,799	2,530	2,603	30,783
Percent of Crashes Alcohol-Related	4.6%	4.5%	4.5%	4.9%	4.7%	5.1%	5.1%	4.6%	4.2%	4.6%	4.7%
Alcohol-Related Injury Crashes	1,519	1,422	1,361	1,448	1,380	1,389	1,339	1,149	1,069	1,156	13,232
Alcohol-Related Fatal Crashes	95	99	112	107	109	119	114	117	105	86	1,063
Alcohol-Related Property Damage Crashes	1,831	1,807	1,596	1,667	1,807	1,862	1,668	1,533	1,356	1,361	16,488
Fatalities Alcohol-Related	105	117	119	118	119	130	125	138	115	94	1,180
Percent of All Fatalities Alcohol-Related	22.4%	25.5%	27.8%	25.2%	28.6%	33.9%	32.4%	32.0%	29.7%	23.2%	27.9%
Injuries Alcohol-Related	2,285	2,014	1,959	2,062	1,949	2,004	1,921	1,652	1,509	1,622	18,977
Percent of All Injuries Alcohol-Related	9.2%	8.5%	8.6%	9.2%	8.5%	9.5%	9.8%	8.7%	8.2%	8.6%	8.9%

Source: 2013 Data Request from Kansas Department of Transportation.

density and were not associated with alcohol outlets.⁶¹ Off-premise alcohol outlets had even less of an impact than on-premise outlets in that study.⁶² Off-premise alcohol outlets were negatively associated with alcohol-related crashes and crashes in general (there were fewer crashes when an off-premise outlet was available, most likely due to decreased driving time).⁶³ Another study on alcohol availability found that older citizens (65 years or older) are affected by alcohol outlet density as shown with an increase in older-driver-involved crashes with every new licensed outlet.⁶⁴

What We Learned From Data

Consumption and alcohol-impaired driving:

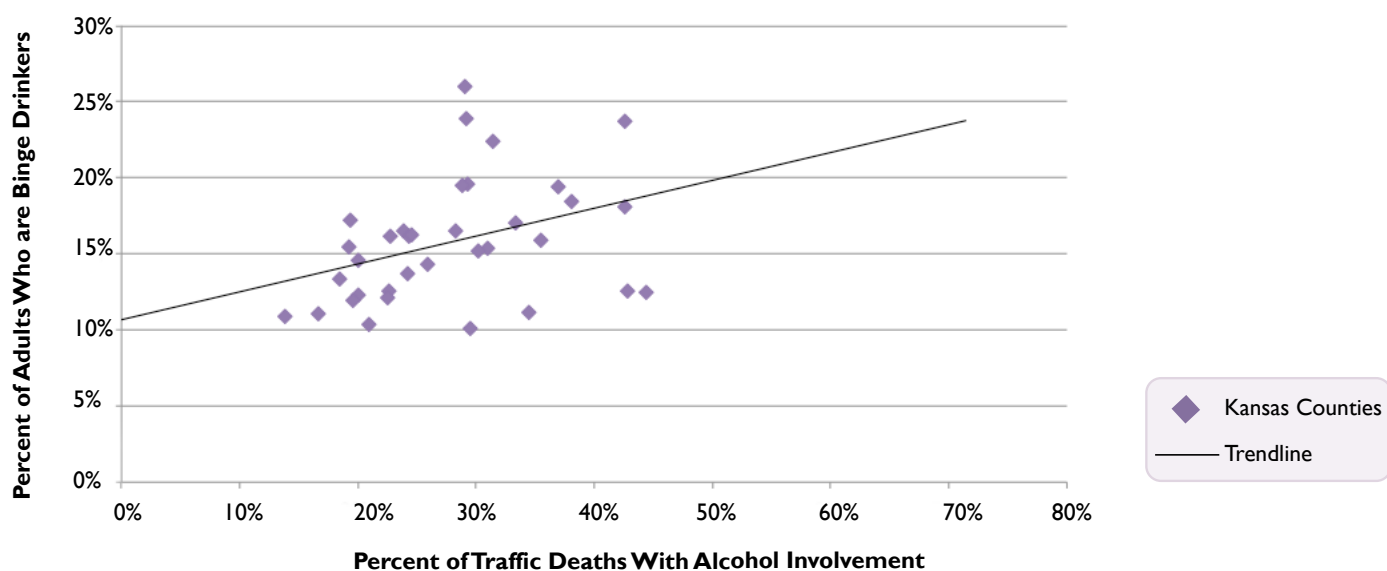
Alcohol-impaired driving was measured in three ways: the percent of all motor vehicle accidents that were alcohol-related, the percent of all motor vehicle deaths that were alcohol-related,

and the alcohol-related traffic mortality rate per 10,000.⁶⁵ Consumption, as measured by alcohol enforcement and excise tax revenues was correlated ($p < 0.01$) with the percent of all motor vehicle accidents that are alcohol-related. Self-reported binge drinking (BRFSS)⁶⁶ was associated ($p < 0.01$) with the percent of all motor vehicle deaths that were alcohol-related (Figure 12, page 35).

Density and alcohol-impaired driving:

Data analyses show that among Kansas counties, alcohol-involved traffic mortality per 10,000 people was correlated with the density of cereal malt beverage (CMB) retailers but not with liquor store density. However, density of alcohol outlets is negatively correlated with the percent of all traffic accidents that were alcohol-related ($p < 0.01$) (Figure 13, page 35).

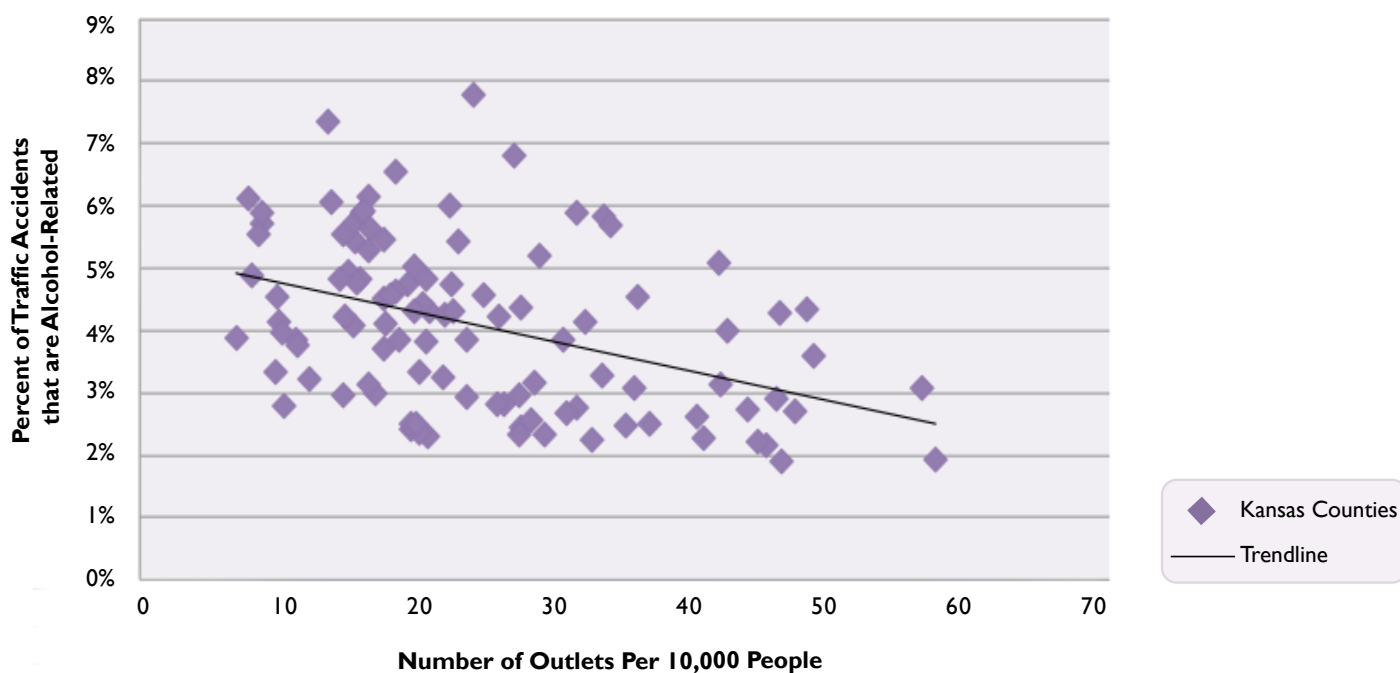
Figure 12. Kansas Binge Drinking, 2011–2012, and Percent of Traffic Deaths with Alcohol Involvement, 2003–2012



Note: Data graphed represent 35 Kansas counties. Binge drinking data were not reported for all counties.

Source: KHI analysis of data from the Kansas Department of Health and Environment (2011–2012) and Kansas Department of Transportation (2003–2012).

Figure 13. Comparison of Kansas Off-Premise Outlets, 2013, and Alcohol-Related Traffic Accidents, 2003–2012



Note: Data graphed represent all 105 Kansas counties.

Source: KHI Analysis of data from the Kansas Department of Transportation (2003–2012) and Kansas Division of Alcoholic Beverage Control (2013).

What We Learned From Stakeholders

Proponents' and opponents' opinions differ on how increased density of alcohol outlets will impact alcohol-related accidents or arrests. Proponents of the legislation stated that patrons of off-premise alcohol outlets do not typically drive under the influence because they purchase packaged products and are not consuming alcohol until they arrive at their destination. Additionally, if off-premise outlet density increases, people will have a shorter distance to drive to obtain alcohol, which may reduce the chance of getting into an accident or being intercepted by law enforcement. Opponents disagree, stating that more access increases consumption of alcohol, which will lead to a greater chance of harm due to driving under the influence.

Conclusion: Health Impacts for Kansas

There are mixed findings and stakeholder opinions on the possible effect of the legislation on DUI (and DUI arrests) and alcohol-related traffic accidents. There are two main arguments in the literature: (1) increased outlet density leads to increased access and alcohol intake, resulting in more people on the road under the influence; and (2) increased outlet density means decreased transit time resulting in fewer alcohol-related accidents. The data reflect this dichotomy. On the one hand, higher alcohol consumption is related to a higher rate of alcohol-related traffic accidents and deaths. On the other, increased density of off-premise alcohol outlets is associated with a decrease in alcohol-related traffic accidents.

Based on literature review and data analyses, an increase in the density of alcohol outlets may result in a small increase or no change in DUI (and DUI arrests) and/or alcohol-related traffic accidents for the general population (Figure 14). However, we anticipate that an increase in alcohol consumption for youth could result in an increase in DUI (and DUI arrests) and alcohol-related vehicle accidents and mortality. Receiving a DUI citation may worsen emotional health due to stress. Additionally, traffic accidents could have a number of negative health effects, including injury and mortality.

“Western Kansans have to travel farther to get products. Having more outlets closer would be beneficial.” – Proponent

“If there is more consumption of higher-alcohol content products, it could lead to more DUIs.” – Public Health Practitioner

“People argue that more outlets will cause an increase in DUIs, but that is not a problem when dealing with packaged liquor.” – Proponent

Figure 14. Impact of Density of Off-Premise Alcohol Outlets and Consumption on Driving Under the Influence (DUI) and Alcohol-Related Traffic Accidents and Associated Health Outcomes

Health Factor or Outcome	Literature Review	Data Analyses	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution	Vulnerable Population	Quality of Evidence
Driving Under the Influence (Arrests)	Mixed	N/A	Mixed	Mixed	Low	Possible	Individuals who received DUI and their families	Elderly, youth, children	*
Alcohol-Related Traffic Accidents	Mixed	Mixed**	Mixed	Mixed	Medium	Possible	Drivers, passengers and their families	Elderly, youth, children	***
Alcohol-Related Traffic Mortality	Mixed	Mixed**	Mixed	Mixed	Medium	Possible	Drivers, passengers and their families	Elderly, youth, children	***

Note: * Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets. ** Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets as well as consumption of alcohol. In instances where data analyses yielded different results regarding the relationship between the indicator and the density of off-premise alcohol outlets, and the indicator and consumption of alcohol, the effect was identified as mixed. Legend is available in Appendix B, pg. 68.

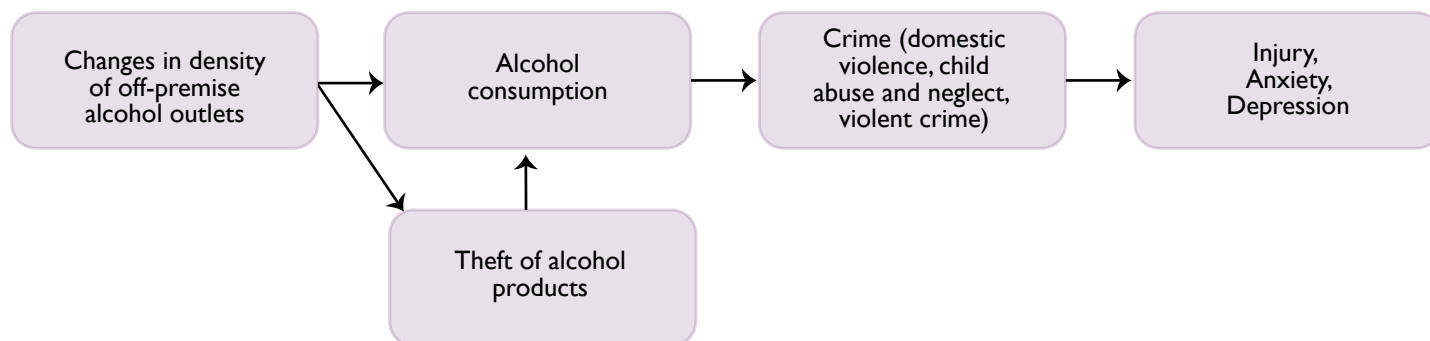
Source: KHI HIA Liquor Project, 2014.



POLICE LINE DO NOT CROSS



Figure 15. Pathway Diagram: How Changes in Density of Off-Premise Alcohol Outlets and Consumption May Affect Crime (e.g., domestic violence, child abuse and neglect, violent crime)



Source: KHI HIA Liquor Project, 2014.

Key Findings

- An increase in density of off-premise alcohol outlets and some increase in consumption for the general population may lead to an increase in violent crime, particularly domestic violence and child abuse.
- Crime can have direct effects on health, including physical impacts such as injuries⁶⁷ or psychological impacts, such as post-traumatic stress disorder.
- An increase in availability of alcohol in grocery and convenience stores may increase theft of alcohol products, especially by youth.

Key Recommendations

- Include questions in the State Added Module of the Behavioral Risk Factor Surveillance System (BRFSS) related to whether Kansans experienced any alcohol-involved domestic violence, child abuse or other violent crime.
- Maintain regular compliance checks of alcohol retailers.
- Increase store surveillance in the areas where liquor is sold.
- Refrain from displaying alcohol products at the entrance of the store or nearby products likely to be purchased by youth (e.g., sodas, energy drinks, chips).
- Identify and report theft of alcohol products to law enforcement agencies in a timely manner.

Crime and Health

Crime can have direct effects on health, including physical impacts such as injuries⁶⁸ or psychological impacts such as post-traumatic stress disorder.⁶⁹ Child maltreatment can have consequences, both “in the moment” and long-term, causing mental and physical health problems including improper brain development, impaired language development and anxiety.⁷⁰ Domestic violence also has immediate and long-term implications. Survivors of domestic violence have more health problems including asthma, cardiovascular disease, and migraines.⁷¹ These immediate and long-term effects impact quality of life and can lead to increased health care costs.⁷²

What We Learned From the Literature

Many studies have found a significant relationship between crime and off-premise alcohol outlet density; the three main areas of crime that are tied to off-premise outlet density are violence,^{73 74} child maltreatment,⁷⁵ and domestic violence.^{76 77} There is a significant relationship between off-premise outlet density and violence and crime, as well as a correlation between child abuse/neglect and domestic violence.^{78 79} One study was able to quantify the result of increasing alcohol off-premise outlet density and found that an addition of six alcohol outlets resulted in one additional violent assault that resulted in an overnight hospital stay.⁸⁰ The greater the male population, in this instance,

the more likely the increase in violent assaults (a three percent increase in males doubled the number of violent assaults).⁸¹ A study of outlet density in Australia found that on-premise outlets were significantly tied to violence but that off-premise outlets were less statistically significant (although there was still a relationship).⁸²

One study found that child abuse and maltreatment was associated with density of bars but not restaurants or off-premise alcohol retailers.⁸³ A 2013 study in New Jersey found that child abuse rates were higher in low-socioeconomic neighborhoods and in neighborhoods with greater alcohol outlet density (both on- and off-premise outlets).⁸⁴ Rates of domestic violence were associated with alcohol outlet density (both on- and off-premise outlets) in a study of 18–26 year olds across the nation.⁸⁵ A longitudinal study in Australia found a positive association between off-premise liquor outlets and domestic violence rates⁸⁶ but a previous, less rigorous study by the same author did not find a connection between off-premise outlets and domestic violence.⁸⁷

What We Learned From Data

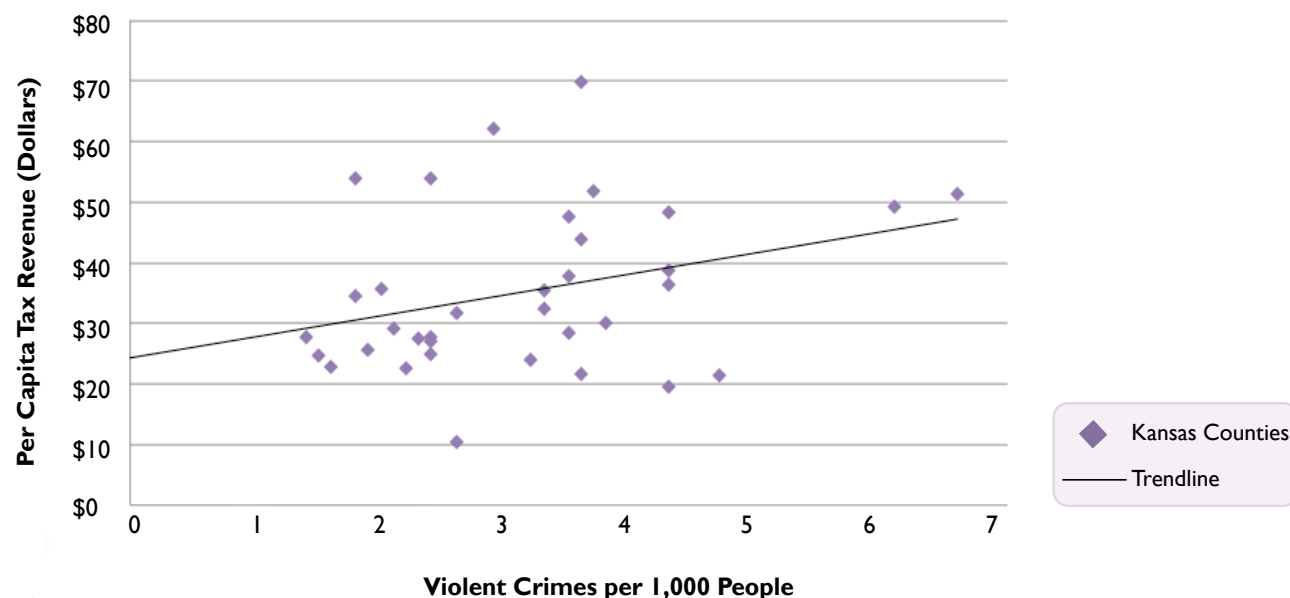
Consumption and crime:

Data analyses indicate that the number of violent crimes per 1,000 people for counties in Kansas⁸⁸ is associated with alcohol consumption levels, as measured by alcohol sales tax revenues ($p < .02$) (Figure 16). Nationwide, the number of violent crimes per 100,000 people⁸⁹ in each state was not associated with alcohol consumption levels. While many factors may contribute to the rate of violent crimes, it appears that the connections between alcohol consumption and violence are more apparent when comparing counties within Kansas versus comparing between states at the national level.

Density and crime:

Violent crimes include four offenses: murder and non-negligent manslaughter, forcible rape, robbery and aggravated assault. Violent crimes are defined as those offenses which involve force or threat of force.⁹⁰ Density of on-premise outlets was found to be correlated ($p < .02$) with violent crimes per 1,000 people within Kansas. However, density of off-premise alcohol outlets was not found to be correlated with violent crimes in Kansas or nationally.

Figure 16. Comparison of Kansas Average Alcohol Consumption Levels and Violent Crime Rate, 2012



Note: Data graphed represent 35 Kansas counties. Consumption data measured by excise and enforcement taxes was not reported for all counties.
Source: KHI analysis of data from the Kansas Bureau of Investigation (2012) and Kansas Department of Revenue (2012).

What We Learned From Stakeholders

Stakeholders identified crime as an important impact to consider. Proponents suggested that crime could decrease under the new legislation. For example, one stakeholder stated that if a liquor store in an impoverished neighborhood transferred their license out of the area, crime surrounding that location could decrease. Grocery store owners stated that purchasing alcohol is likely not the main purpose for their consumer’s visit, and that generally the grocery store environment is safer and more family-friendly than a liquor store. However, opponents argued that enforcement may be an issue, which could cause an increase in crime, especially for youth. They state that liquor stores operate in a more controlled environment, reducing the chance of selling to minors or other infractions.

Conclusion: Health Impacts for Kansas

The literature review shows that there is a significant relationship between alcohol outlet density and crime. The most common types of crime associated with off-premise alcohol outlets are violence, child maltreatment, and domestic violence. However, there is a lack of studies that specifically examine the relationship between crime and grocery or convenience stores that sell alcohol. The data analyses show that the density of off-premise alcohol outlets was not found to be correlated with violent crimes in Kansas or nationally. On the other hand, further data analyses of consumption and violence found that consumption was tied to violence when comparing counties but not when comparing between states. Stakeholders had mixed views on how crime could be impacted, although many mentioned that purchasing alcohol from grocery stores and convenience stores

may divert customers away from liquor stores which could decrease crime. Other stakeholders were concerned with an increase in alcohol theft due to diminished enforcement, which has also been identified by the subject matter experts studying those changes as a result of legislation that relaxed liquor laws in other states.^{91 92}

Based on research and data analyses, an increase in density of off-premise alcohol outlets and consumption may lead to some increase in violent crime (e.g., domestic violence, child abuse) (Figure 17). Additionally, an increase in availability of alcohol in grocery and convenience stores may increase theft of alcohol products. Crime can have direct effects on health, including physical impacts such as injuries⁹³ or psychological impacts such as post-traumatic stress disorder.⁹⁴ Child abuse and neglect can cause physical as well as physiological problems (e.g., cognitive delays or emotional difficulties).⁹⁵ Psychological problems often result in high-risk behaviors, including smoking or alcohol/drug use⁹⁶ and associated negative health outcomes, such sexually transmitted diseases (STDs).⁹⁷ Domestic violence can also lead to a variety of health effects, including chronic fatigue, disturbed sleeping and eating, depression and anxiety.⁹⁸ Domestic violence also increases vulnerability to illnesses.⁹⁹

“Incarceration rates and impaired driving could go up if the law changes.”
– Public Health Practitioner

Figure 17. Impact of Density of Off-Premise Alcohol Outlets and Consumption on Crime and Associated Health Outcomes

Health Factor or Outcome	Literature Review	Data Analyses	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution	Vulnerable Population	Quality of Evidence
Crime	Increase	Mixed**	Mixed	Negative	Medium	Possible	Partners, children and general population	Elderly, children	**

Note: * Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets. ** Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets as well as consumption of alcohol. In instances where data analyses yielded different results regarding the relationship between the indicator and the density of off-premise alcohol outlets, and the indicator and consumption of alcohol, the effect was identified as mixed. Legend is available in Appendix B, pg. 68.
Source: KHI HIA Liquor Project, 2014.

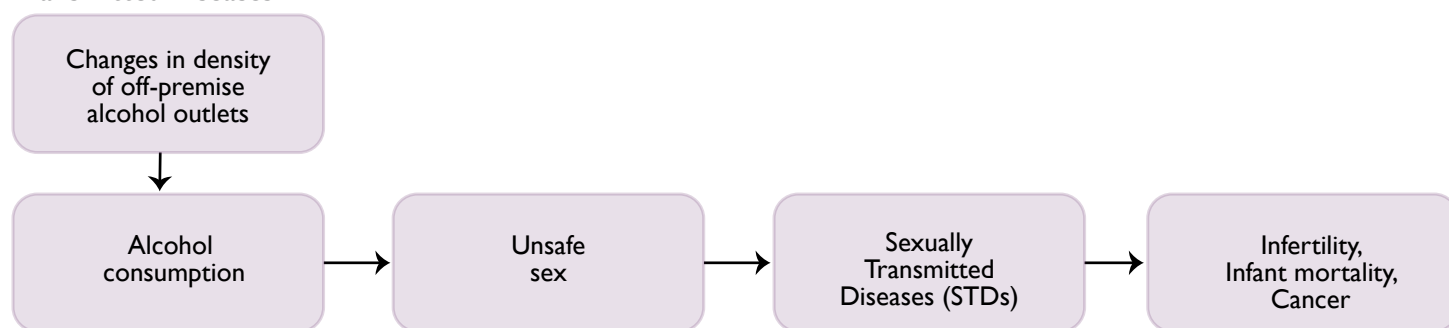
Notes:

Dotted lines for note-taking.





Figure 18. **Pathway Diagram: How Changes in Density of Off-Premise Alcohol Outlets and Consumption May Affect Sexually Transmitted Diseases**



Source: KHI HIA Liquor Project, 2014.

Key Findings

- Sexually Transmitted Disease (STD) rates have been shown to rise with increased density of alcohol outlets and alcohol consumption.
- Increase in alcohol outlet density and consumption may result in a small increase or no change in sexually transmitted diseases (STDs) rates for the general population and substantial increase for youth.
- STDs can have immediate effects on health as well as long-term effects, such as compromised fertility, stillbirth, lower-birth weight and a higher risk of cancer.

Key Recommendations

- Continue to monitor STD rates, with a focus on changes in rates in areas where density of off-premise alcohol outlets increase.
- Add analysis of alcohol outlet density's impact on Kansas STD rates to appropriate projects and reports (e.g. *Kansas STD Report*).
- Determine what populations are most affected by density changes and develop evidence-based interventions or preventative efforts for those populations if correlation is found.
- Educate students about risky behaviors, including drinking and unsafe sex and associated health outcomes, such as STDs.

Sexually Transmitted Diseases (STDs) and Health

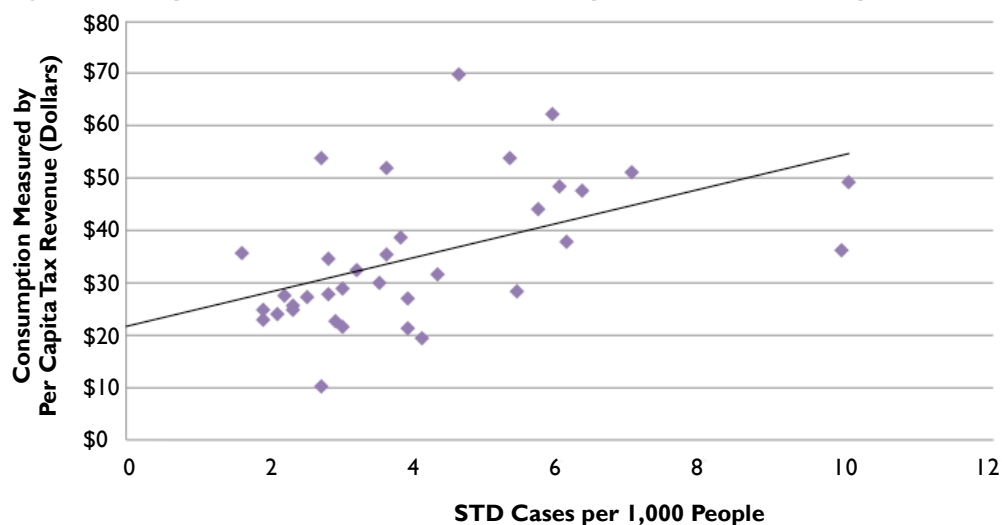
Sexually transmitted diseases have immediate and long-term implications. STDs can have immediate effects on health as well as long-term consequences, such as compromised fertility and increased risk of cancer.¹⁰⁰ In 2013, Kansas had a rate of chlamydia of 384 per 100,000 people, gonorrhea prevalence was 75 cases per 100,000, and early syphilis was less than 5 cases per 100,000 people.¹⁰¹

What We Learned From the Literature

There is limited information on how alcohol outlet density affects sexually transmitted diseases (STDs), but the literature that does address this subject is conclusive: off-premise alcohol outlet density is tied to an increase in STDs. An older study in New Orleans, LA, found that a 10 percent increase in off-premise (liquor stores, grocery stores, and convenience

stores) alcohol outlet density was associated with a 5.8 percent increase in gonorrhea (gonorrhea is a proxy for high-risk sexual behavior at the census tract level).¹⁰² A study in Los Angeles, CA, found that after removing a number of off-premise (liquor stores, grocery stores, and convenience stores) alcohol outlets from the market, there was a significant drop in gonorrhea cases (the removal of one off-premise outlet resulted in a decrease of 42 gonorrhea cases per 100,000 people).¹⁰³ A more recent study combined data from New Orleans and the state of Louisiana and found that off-premise outlets (liquor stores, grocery stores, and convenience stores) were significantly tied to an increased number of STD cases.¹⁰⁴ This study did not examine off-premise alcohol outlets, although the first two studies did and found that off-premise outlets were more significantly tied to more cases of STDs.

Figure 19. Comparison of Kansas Alcohol Consumption, 2012, to Sexually Transmitted Disease Rates, 2011



Note: Data graphed represents 35 Kansas counties. Consumption data measured by excise and enforcement taxes were not reported for all counties.

Source: KHI analysis of data from the Kansas Department of Health and Environment (2011) and Kansas Department of Revenue (2012).

◆ Kansas Counties
— Trendline

What We Learned From Data

Data analyses show that within Kansas, rates of alcohol consumption, as measured by alcohol excise and enforcement tax revenues, are associated with STD rates (chlamydia, gonorrhea, and syphilis combined), as shown in Figure 19.¹⁰⁵ Additionally, data analyses show that nationally, all access-point density¹⁰⁶ is correlated with STD rates (chlamydia).¹⁰⁷

What We Learned From Stakeholders

When asked how the proposed Kansas liquor legislation could affect the health of Kansans, stakeholders did not identify STDs as a potential area that could be impacted by the legislation. Therefore, stakeholders were not asked a specific question about STDs to determine if they thought rates would increase or decrease due to the legislation.

Conclusion: Health Impacts for Kansas

Although stakeholders did not identify an increase in sexually transmitted diseases (STDs) as an outcome that could be impacted by an increase in alcohol outlet density, the data and literature show a strong correlation between off-premise outlets or consumption and an increase in certain STDs. The literature showed a strong association between density of off-premise alcohol outlets and STD rates, although the analyses of off-premise outlets did not break apart liquor stores from grocery and convenience stores. The data analyses found that an increase in alcohol consumption was associated with an increase in STD rates. Based on available evidence, we anticipate that there would be a small increase or no change in STD rates among the general population if the proposed legislation was passed. However, increased levels of alcohol consumption among youth could result in an increase in STD rates and associated negative health effects, including infertility, increased risk of cancer and infant mortality (Figure 20).

Figure 20: Impact of Density of Off-Premise Alcohol Outlets and Consumption on Sexually Transmitted Diseases (STDs) and Associated Health Outcomes

Health Factor or Outcome	Literature Review	Data Analyses	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution	Vulnerable Population	Quality of Evidence
Sexually Transmitted Diseases (STDs)	Increase	Increase**	N/A	Negative	Low	Possible	Sexually active individuals	Elderly, youth, infants born to mothers with STDs	***

Note: * Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets. ** Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets as well as consumption of alcohol. In instances where data analyses yielded different results regarding the relationship between the indicator and the density of off-premise alcohol outlets, and the indicator and consumption of alcohol, the effect was identified as mixed. Legend is available in Appendix B, pg. 68.

Source: KHI HIA Liquor Project, 2014.





Key Findings

- Kansas counties with lower median incomes generally have higher densities of alcohol outlets.
- An increase in availability of alcohol in grocery and convenience stores will likely increase youth consumption.
- An increase in youth consumption could result in more alcohol-related motor vehicle accidents and mortality for this population.

Key Recommendations

- Strengthen enforcement of laws prohibiting sales to minors.
- Develop or strengthen a written policy that identifies steps that sales staff must take for every alcohol-related transaction (e.g., procedures for checking ID, sale refusal practice).
- Train all staff before allowing the sale of alcohol (e.g., pertinent local and state laws).

What We Learned From the Literature

A number of studies, including one in 2013, have identified associations between high density of alcohol sales outlets — especially off-premise outlets — and low socioeconomic status, minority, or residential instability^{108 109 110} although not all recent studies reflect this association.¹¹¹ A 2007 review found that vulnerable populations could be affected by increased alcohol outlet density and may have long-term health problems but that this effect might not be seen at the population-level.¹¹² A 2013 study that looked at a midwestern county in Minnesota did not find an association between low-income census tract and increased alcohol consumption, but did find that the mix of food stores to liquor stores influenced binge drinking: people living in areas with only liquor stores were at higher risk of binge drinking than those with food-only stores.¹¹³ Another study found that there was an association between socioeconomic status and outlet density but that the alcohol availability was not associated with heavy drinking, although the same review found that outlet density was significantly correlated to high-risk drinking (five or more standard drinks) among college students.¹¹⁴ The relationship between college students' drinking and outlet density was replicated in small town, urban, and suburban universities in the U.S.¹¹⁵ Another study found that higher educational attainment levels were associated with more frequent drinking of alcoholic beverages but lower educational attainment is associated with heavier drinking.¹¹⁶

The effect of alcohol outlet density on alcohol consumption among minors is a debated topic, although the overall

findings point towards an increase in youth consumption with increased density. Some studies have found that increased off-premise density leads to increased underage drinking^{117 118 119 120} while others found no such association.¹²¹ Neighborhood socioeconomic status was found to be tied to drinking in adolescents: those living in the most economically deprived areas consumed the most alcohol.¹²²

What We Learned From Data

KHI's analysis found that density of alcohol outlets is negatively correlated with median household income¹²³ within Kansas, meaning that counties with lower median incomes generally have higher densities of alcohol outlets. This is true of liquor stores ($p < .02$) as well as cereal malt beverage retailers ($p < .01$). This indicates that those who are in lower-income neighborhoods may be more exposed to alcohol. However, the Behavioral Risk Factor Surveillance System (BRFSS) measure of having at least one drink in the past 30 days (a measure of drinking, but not necessarily binge drinking) is positively correlated with median household income ($p < .01$). This could mean that those who have higher incomes may be able to purchase alcohol for moderate consumption. Binge drinking among youth is negatively correlated with household income ($p < .02$), indicating that lower-income youth are more likely to binge drink. Binge drinking was not positively or negatively associated with household income for adults.

Youth consumption and alcohol-impaired driving:

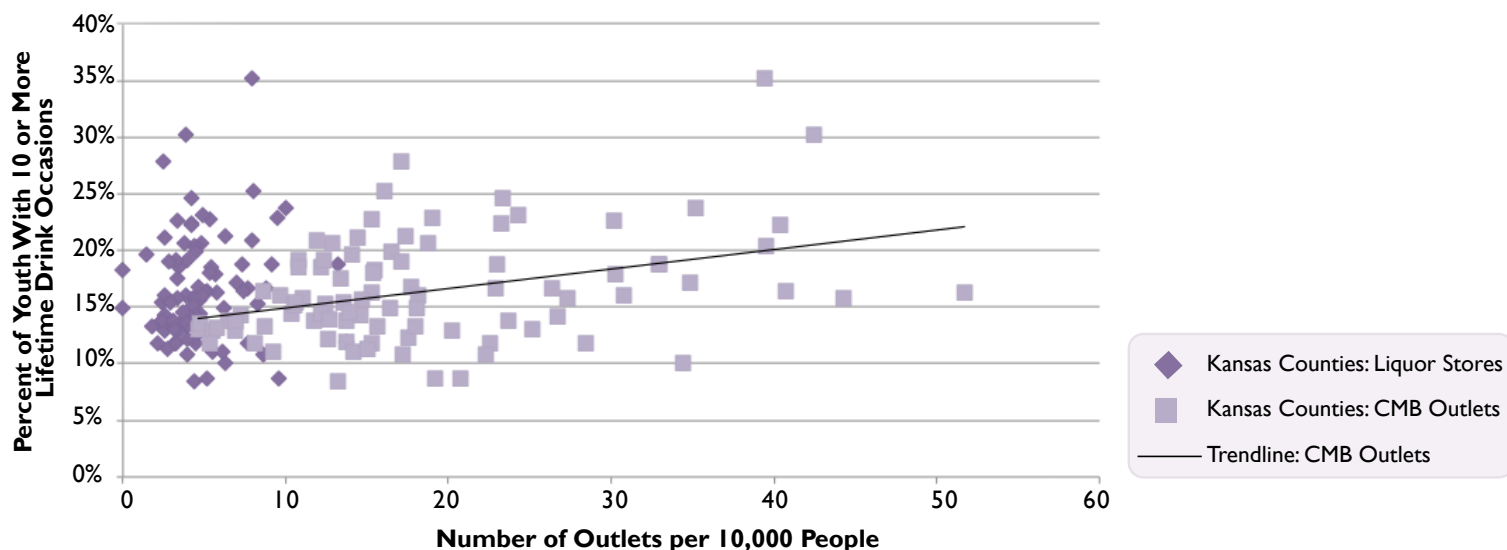
Youth drinking on more than 10 occasions in the past 30 days¹²⁴ is correlated ($p < .01$) with alcohol-related traffic mortality per

10,000 people and the percent of all deaths that are alcohol-involved ($p < .01$). Additionally, youth drinking on more than 10 occasions in their lifetime, as well as drinking on more than 10 occasions in the past 30 days, are correlated with unintentional injury mortality per 100,000 (both at $p < .02$).

Youth and outlet density and consumption:

Based on the Youth Communities That Care (CTC) survey, self-reported youth consumption (consumption over a lifetime, consumption in the past month, and binge drinking in the past two weeks) is correlated ($p < .01$) with off- and on-premise cereal malt beverage (CMB) sales, as well as total off-premise

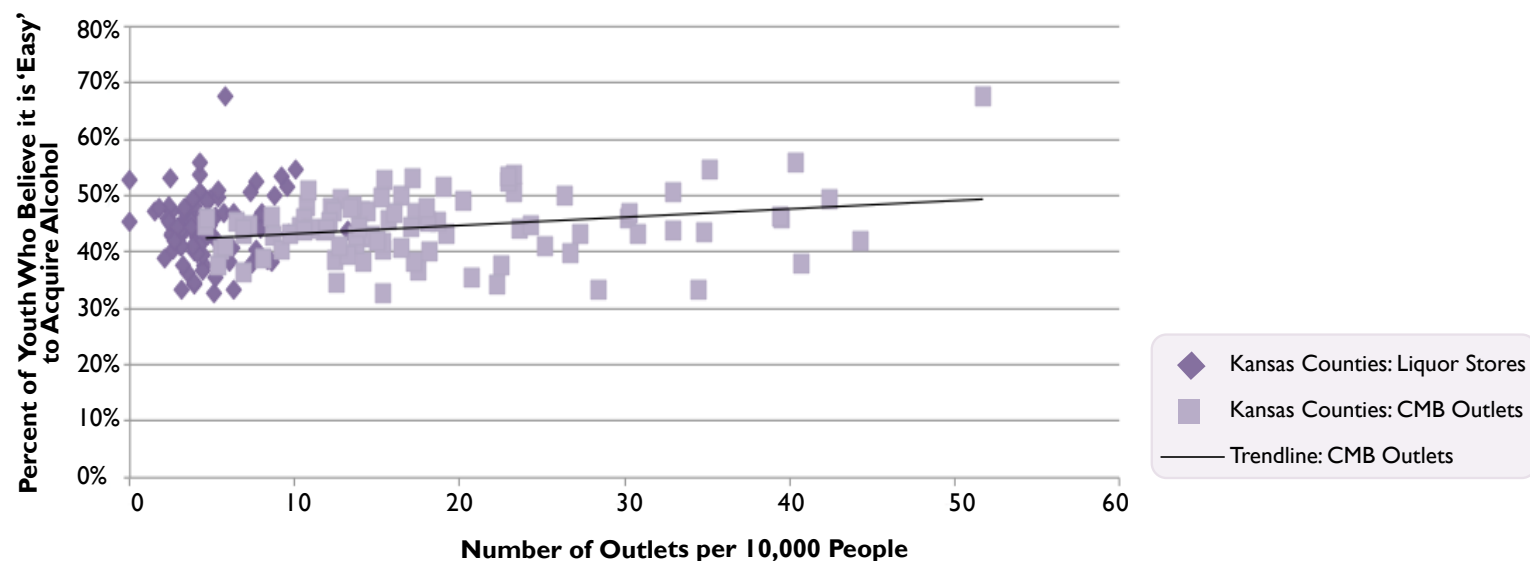
Figure 21. Comparison of Kansas Liquor Stores and Cereal Malt Beverage (CMB) Outlets to Kansas Youth Consumption, 2013



Note: Data graphed represent 92 Kansas counties. Youth consumption data were not reported for all counties.

Source: KHI analysis of data from the Communities That Care Survey (2013) and Kansas Division of Alcoholic Beverage Control (2013).

Figure 22. Kansas Liquor Stores, Cereal Malt Beverage (CMB) Outlets and Youth Perception of Ease of Acquisition, 2013



Note: Data graphed represents 92 Kansas counties. Youth perception of ease of acquisition data were not reported for all counties.

Source: KHI analysis of data from the Communities That Care Survey (2013) and Kansas Division of Alcoholic Beverage Control (2013).

sales, but not with liquor sales alone (Figure 21, page 50). Additionally, youth perception that it is 'easy' to acquire alcohol is correlated ($p < .01$) with off-premise CMB availability (Figure 22, page 50). Youth perception that it is 'easy' to acquire alcohol is also correlated ($p < .05$) with all off-premise sales. While on-premise outlet density seems to be more closely correlated with drinking among the general population, youth consumption appears to be more closely tied to off-premise and CMB (grocery and convenience store) availability.

What We Learned From Stakeholders

Stakeholders mentioned several groups that may be disproportionately impacted if the legislation goes into effect. The most cited population of concern was youth. All stakeholders agreed that they were concerned about youth gaining access to alcohol. Grocery and convenience store representatives agreed that it was extremely important to sell these products in a responsible manner and to provide safeguards against selling to minors. However, with an increase in outlets, enforcement may be an issue as grocery and convenience stores are currently regulated by their respective local governments and not through the Kansas ABC. Opponents stated that youth access is a concern, and it could lead to problem drinking and other negative health outcomes, including violence.

Other vulnerable populations mentioned were small businesses, including both liquor and grocery store owners that may struggle to stay in business if the legislation passes, especially in rural communities. On the one hand, liquor stores will be vulnerable to sales shifting to grocery and convenience stores, which could impact their livelihood. On the other,

"We try to be good, responsible community members."

— Large Grocery Store

"Increased outlets will make the law harder to enforce."

— Opponent

grocery stores struggling to stay in business may not survive without additional revenue streams they could gain if they are allowed to sell alcohol. Another population mentioned included Kansans with substance abuse problems. Stakeholders suggested that with increased access, problem drinkers may be tempted to drink more than they would normally. Finally, stakeholders stated that those in poverty might also be impacted if they have increased access to alcohol.

Conclusion: Health Impacts for Kansas

The literature found that there is a higher density of off-premise alcohol outlets in low socioeconomic neighborhoods although those results were somewhat mixed. The data found that counties with lower median household incomes were more likely to have higher densities of off-premise alcohol outlets." The literature review concluded that most researchers found an association between youth drinking and increase density of alcohol outlets. Kansas-specific data found that youth binge drinking was tied to low socioeconomic status. It also found that youth's perception of

"Increased access would make it easier for youth to get alcohol and potentially get in trouble."

— Opponent

ease of obtaining alcohol was correlated with an increase in off-premise outlets. Stakeholders felt that youth populations were the most likely to be negatively affected by the legislation. Based on available evidence, we anticipate that some vulnerable populations (e.g., youth) could be disproportionately effected by changes to the Kansas Liquor Control Act (Figure 23, page 52). Many state that that adolescent consumption could carry significant repercussions as adolescent alcohol consumption has been tied to future negative health effects and potential future alcohol abuse.¹²⁵ Underage drinking is associated with increased school problems, higher risk for suicide and homicide, and unwanted, unplanned, and unprotected sexual acts.¹²⁶

Figure 23. Impact of Density of Off-Premise Alcohol Outlets and Consumption on Vulnerable Populations and Associated Health Outcomes

Health Factor or Outcome	Literature Review	Data Analyses	Stakeholder Projections	Expected Health Impact	Magnitude of Impact	Likelihood of Impact	Distribution	Vulnerable Population	Quality of Evidence
Alcohol Consumption (Youth)	Increase	Increase*	Increase	Negative	Medium	Likely	Youth that consume alcohol	Youth, low-income youth	***
Alcohol-Related Traffic Mortality (Youth)	Mixed	Increase**	Increase	Negative	Medium	Likely	Youth that consume alcohol and choose to drive	Elderly, youth, children	***

Note: * Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets. ** Data analyses were performed to explore the relationship between the indicator and the density of off-premise alcohol outlets as well as consumption of alcohol. In instances where data analyses yielded different results regarding the relationship between the indicator and the density of off-premise alcohol outlets, and the indicator and consumption of alcohol, the effect was identified as mixed. Legend is available in Appendix B, pg. 68.

Source: KHI HIA Liquor Project, 2014.





Stakeholders provided their perspectives on several health impacts that may be associated with this legislation if it was to pass. In addition to the health impacts described throughout the report, stakeholders identified impacts related to economic and enforcement issues as important factors to consider. The HIA team did not conduct further assessment on these topics due to limited literature and data; however, the information provided by stakeholders is included below. Future assessment of indicators related to enforcement (e.g., agency capacity, compliance checks) and economic issues (e.g., tax revenue, jobs) will be important to conduct in order to fully realize how the legislation could impact Kansans.

“The legislation creates a level playing field for other types of businesses that want to sell alcohol products.”

– Small Grocery Store Owner

“Commerce [alcohol sales] will shift to big box stores.”

– Proponent

Enforcement

According to state officials, the Kansas ABC regulates liquor stores, but does not currently regulate grocery and convenience stores, which is handled at the county level. Some stakeholders thought if this legislation passes, enforcement may be more difficult due to increased number of alcohol outlets. They also mentioned that without additional funding for more regulators, the increased number of outlets might diminish the level of regulation and enforcement of alcohol laws in the state. State officials indicated that for fiscal year 2015, it was estimated that Kansas ABC would need additional enforcement agents, licensing representatives, clerical staff, attorneys and a legal assistant totaling approximately \$1.4 million. Stakeholders also suggested that the compliance rate is somewhat lower for these stores because they are not regulated at the state level. Additionally, it was noted that if the legislation passes, more checks on new license holders might be required initially to get them accustomed to the regulatory process.

Opponents and neutral parties stated that diminished enforcement could potentially result in negative impacts, including increased crime. They were concerned about enforcement in grocery and convenience stores and increased risk of alcohol being sold to minors because liquor stores are currently more closely regulated. Supporters of the legislation disagreed, arguing that grocery and convenience stores already have experience with age restrictions and are appropriately selling cereal malt beverages and other regulated products, including pharmaceuticals and cigarettes. For example, a large store representative stipulated that they have mechanisms in place to prevent underage sales through employee training, among other things.

Economic Considerations

Business Landscapes

Proponents of the legislation argued that liquor sales should be conducted in a “free market” environment as other products are. They stated that this legislation would provide consumers with more choice and convenience when purchasing alcohol. Some companies indicated they might not expand in the state unless they were able to sell these products. However, they also noted there are other factors that contribute to the decision to locate in a community. Proponents stipulated that, especially for small and rural grocers and convenience stores, the legislation would help to keep them in business. However, others commented that this may be at the expense of losing a liquor store in the same community. Although the concern over a potential disadvantage to liquor stores was

“We would be able to give back to the local community through selling products that have sales taxes.”

– Liquor Store Owner

“Paying for treatment of alcohol-related issues costs the state money.”

–Opponent

shared among some opponents, there were other liquor stores supportive of the legislation that wanted to be able to sell additional products in their stores including tobacco, food and mixers, among others. Grocers stated they are good stewards of the community and provide access to healthy foods, which would be negatively affected if struggling stores cannot survive. On the other hand, most liquor stores interviewed were family-owned and expressed concerns about the health of their families and employees if their businesses suffer financially.

“The legislation will degrade the economic health of liquor store owners because it will hurt those businesses.”

– Opponent

“There will be an increase in jobs for existing grocery stores. New stores bring a lot of economic development to communities.”

– Large Grocery Store

Alcohol Sales

Whether or not consumption increases, interviewees stated there may be some shift in alcohol sales from liquor stores to grocery and convenience stores. Proponents argued that capping the number of licenses would create fewer disadvantages for liquor stores. They also suggested that allowing liquor stores to sell other products would add to their sales.

Tax revenue from alcohol sales is another issue that was discussed in interviews. They stated that currently, taxes from the sale of cereal malt beverages in grocery and convenience stores remain in the community. Stakeholders were under the impression that tax revenue usually received from cereal malt beverage (CMB) sales would no longer remain in the community because CMB sales may decline once full-strength beer is allowed in grocery and convenience stores, in which case, tax revenue would go to the state. However, liquor stores in support of the legislation stated that by selling other products, their tax revenue would stay in their communities and could be used to fund some social services and other community programs.

Jobs

There was a consensus among all stakeholders that jobs would be impacted. Proponents argued that new jobs would be created as a result of grocery and convenience stores being able to sell additional products. Small and rural grocery stores felt that they would be able to stay in business, and therefore maintain their current employees. According to grocery stores, they employ full-time and part-time workers. Those we spoke with stated there are health insurance benefits for full-time employees, which would lead to positive health impacts if the newly created jobs are full-time positions. On the other hand, liquor stores were concerned about losing their businesses and livelihoods as a result of larger businesses being able to sell alcohol products.

“It [increased outlets] could lead to family breakups and loss of employment for problem drinkers.”

– Neutral Stakeholder





The proposed legislation (Substitute for House Bill 2556), stipulates that the number of retail liquor licenses (Class A — full-strength beer, wine and spirits) in Kansas will be held at the current level of 753 until 2024. Starting in 2019, about one-third of grocery and convenience stores will be eligible to receive a transferred license and sell full-strength beer (*Figure 7, page 28*) (Class B) or wine (Class C), within geographical restrictions set forth in the legislation.¹ After the license cap is removed in 2024, the number of off-premise alcohol outlets in Kansas could increase significantly up to a total of 3,015 as grocery and convenience stores would be eligible to apply for retail liquor licenses. However, this increase would depend on the number of grocery and convenience stores that apply and receive liquor licenses, as well as the number of liquor stores that transfer their licenses to grocery and convenience stores.

Although the Substitute for House Bill 2556 doesn't explicitly stipulate what type of liquor licenses grocery and convenience stores can obtain after 2024, it is understood that grocery and convenience stores would be eligible to apply for all three types of retail liquor licenses.

Increasing the density² of off-premise alcohol outlets³ after 2024 may increase alcohol consumption. However, the level of changes in consumption will largely depend on the magnitude of an increase in the density of off-premise alcohol outlets. The evidence suggests that consumption may increase slightly for the general population and may increase more for youth. The projected changes in consumption for youth may result in an increase in alcohol-related traffic accidents and STDs. Additionally, availability of alcohol in grocery and convenience stores may increase theft of these products among youth. However, a slight increase in consumption for general population is projected to result in a small increase or no change in DUI (arrests) and alcohol-related traffic accidents. Furthermore, an increase in density of off-premise alcohol outlets and consumption may lead to some increase in violent crime (e.g., domestic violence, child abuse), and STDs.

There are vulnerable populations that may be more impacted by changes to the Kansas Liquor Control Act than others. Vulnerable populations can be defined as populations that have experienced greater obstacles to health based on their racial or ethnic group, religion, socioeconomic status, gender, mental health, cognitive, sensory, or physical disability, sexual orientation or gender identity or geographical location.⁴ For example, low-income neighborhoods generally have more outlets for alcohol beverage sales and higher rates of youth binge drinking. The HIA found that youth consumption of alcohol would likely increase under the new legislation, which could lead to negative health outcomes for that population. To mitigate the potential negative health effects associated with the proposed changes to the Kansas Liquor Control Act, the HIA team, with input from stakeholders, developed a set of evidence-based recommendations to inform the decision-making process:

- Track changes in number and density of off-premise alcohol outlets by type (i.e., grocery, convenience stores).
- Include questions in the State Added Module of the Behavioral Risk Factor Surveillance System (BRFSS) related to where Kansans purchase and consume alcohol and the type of alcohol consumed.
- Include questions in the Communities that Care survey (CTC) to determine where Kansas youth obtain alcohol products (grocery, convenience and/or liquor stores) and the type of alcohol consumed.
- Use the KHI HIA Liquor Project “Monitoring Plan” (included in this report) to develop a robust protocol to track the impact of this legislation on relevant health indicators and costs.
- Maintain geographical restrictions on license issuance after 2024.
- Maintain limits on days and hours of alcohol sales.
- Increase sobriety checkpoints, especially in areas where there is an increased density of off-premise retail alcohol outlets.
- Publicize sobriety checkpoints throughout the state.

The full list of findings and recommendations is available in Appendix A, page 63.





KEY FINDINGS AND RECOMMENDATIONS

Figure A-1. Key Findings and Recommendations

KEY FINDINGS		RECOMMENDATIONS	RATIONALE
AREAS	The findings were developed based on the literature review, data analyses, and stakeholder interviews.	The recommendations are drawn from the findings and are intended to maximize health benefits while minimizing health risks.	The recommendations are based on evidence-based materials or expert opinion.
CONSUMPTION	- Changes in liquor licensing regulations may increase the density of off-premise alcohol outlets after 2024. - Increase in density of off-premise alcohol outlets may result in lower prices. Decrease in price of alcohol have been shown to increase consumption. - Increased density of off-premise alcohol outlets may lead to some increase in alcohol consumption for the general population. However, youth consumption is projected to increase substantially. - An increase in consumption could increase the risk of heart disease, liver disease and cancer. The extent of these risks would depend upon the level of increase in consumption.	Surveillance and Monitoring Kansas Division of Alcoholic Beverage Control could consider: - Tracking changes in number and density of off-premise alcohol outlets by type of outlets (grocery, convenience and liquor). - Making these data available to various entities, including state departments, research organizations and others. Kansas Department of Health and Environment could consider: - Including questions in the State Added Module of the Behavioral Risk Factor Surveillance System (BRFSS) related to where Kansans purchase and consume alcohol and the type of alcohol consumed. - Tracking and monitoring annual changes in consumption by using the Behavioral Risk Factor Surveillance System (BRFSS) and providing recommendations to pertinent agencies, including the Kansas Department of Transportation, the Kansas Department of Children and Families, the Kansas Department for Aging and Disability Services. State policymakers could consider: - Identifying and appointing appropriate agencies (e.g., Kansas Department of Health and Environment, Kansas Department for Children and Families) to develop a robust plan to track the impact of this legislation on relevant health indicators and associated costs. The tracking plan can be developed based on the KHI HIA Liquor Project report “Monitoring Plan” (Figure 4, page 20).	Surveillance and Monitoring The Behavioral Risk Factor Surveillance System (BRFSS) is a statewide, robust data source for Kansas communities. The addition of several new questions related to alcohol consumption and purchasing patterns would help to monitor and compare how on-premise and off-premise outlets impact consumption. Understanding how on- and off-premise outlets, particularly the type of outlets (grocery, convenience, and liquor stores), affect consumption in Kansas, will provide valuable information to researchers and policymakers that is not currently available. This information will help decision-makers understand how to allocate resources to minimize any negative health impacts of increased alcohol consumption.

KEY FINDINGS		RECOMMENDATIONS	RATIONALE
AREAS	The findings were developed based on the literature review, data analyses, and stakeholder interviews.	The recommendations are drawn from the findings and are intended to maximize health benefits while minimizing health risks.	The recommendations are based on evidence-based materials or expert opinion.
CONSUMPTION (CONT.)		Geographical Restrictions and Time of Sale State and local policymakers could consider: • Maintaining geographical restrictions on new retail alcohol licenses beyond 2024. • Maintaining limits on days and hours of alcohol sales. • Maintaining or increasing the price of alcohol products.	Geographical Restrictions and Time of Sale Alcohol sales regulations have various components, including hours of sales, age of seller, retail sale and distribution license requirements. According to evidence from research and expert opinion, these regulations may impact consumption. For example, states with more weekly hours of alcohol sales have higher consumption. Thus, maintaining reasonable density of off-premise alcohol outlets and limiting purchasing hours may mitigate increases in consumption.
DUI ARRESTS AND TRAFFIC ACCIDENTS	• Changes in density and consumption may result in a small increase or no change in DUI rates and/or traffic accidents and related mortality for the general population.	Kansas Law Enforcement, in collaboration with the Kansas Department of Transportation, could consider: • Increasing sobriety checkpoints, especially in areas where there is an increased density of off-premise alcohol outlets. Media Outlets and the Kansas Department of Transportation, in collaboration with Kansas Law Enforcement, could consider: • Publicizing sobriety checkpoints throughout the state.	Sobriety Checkpoints According to evidence from the Center for Disease Control (CDC) <i>Community Guide</i> research and expert opinion, sobriety checkpoints are effective measures to identify intoxicated drivers and reduce the risk of traffic accidents. Media Outreach Including media coverage of sobriety checkpoints is an evidence-based way to increase the effectiveness of the checkpoints. Publicity increases the public's perceived risk of arrest which in turn decreases drinking and driving.

KEY FINDINGS		RECOMMENDATIONS	RATIONALE
AREAS	The findings were developed based on the literature review, data analyses, and stakeholder interviews.	The recommendations are drawn from the findings and are intended to maximize health benefits while minimizing health risks.	The recommendations are based on evidence-based materials or expert opinion.
CRIME	- An increase in density of off-premise alcohol outlets and an increase in consumption may lead to some increase in crime (e.g., domestic violence, child abuse, violent crime). - Crime can have direct effects on health, including physical impacts such as injuries or psychological impacts such as post-traumatic stress disorder. - An increase in availability of alcohol in grocery and convenience stores may increase theft of alcohol products.	Surveillance and Monitoring The Kansas Department of Health and Environment, in collaboration with the Kansas Bureau of Investigation, could consider: - Including questions in the State Added Module of the Behavioral Risk Factor Surveillance System (BRFSS) related to whether Kansans experienced any alcohol-involved domestic violence, child abuse, or other violent crime. - Tracking and monitoring annual changes in domestic violence and child abuse rates by using the Behavioral Risk Factor Surveillance System (BRFSS) and providing recommendations to pertinent agencies and organizations, including Kansas Sexual and Domestic Violence Primary Prevention Planning Committee. Resource Allocation State policymakers could consider: - Using surveillance data from the Behavioral Risk Factor Surveillance System (BRFSS) to prioritize and allocate resources for supporting crime-prevention efforts. Addressing Theft of Alcohol Products The Kansas Division of Alcoholic Beverage Control could consider: - Maintaining regular compliance checks of alcohol retailers. Off-Premise alcohol outlets could consider: - Increasing store surveillance in the areas where liquor is sold. - Refraining from displaying alcohol products at the entrance of the store or nearby products likely to be purchased by youth (e.g., sodas, energy drinks, chips). - Strengthen enforcement of laws prohibiting sales to minors. - Identifying theft incidence and reporting to law enforcement agencies in a timely manner. State policymakers could consider: - Requiring liquor outlets to report thefts to law enforcement. - Applying all taxes before the alcohol products are sold to a consumer (before the point-of-sale).	Surveillance and Monitoring The CDC supported action guide on regulating alcohol outlet density states that, “State and community efforts to regulate alcohol outlet density should begin with robust public health surveillance on excessive alcohol consumption and related harms.” One way to improve surveillance of Kansas consumption is to utilize the Behavioral Risk Factor Surveillance System (BRFSS), a statewide robust data source for Kansas communities. In addition to the questions on off-premise outlets, the addition of several new questions related to domestic violence, child abuse and other violent crime would help to understanding how off-premise alcohol outlets, particularly the type of outlets (grocery, convenience, and liquor stores), affect violent crime. This information will help decision-makers allocate resources to minimize any negative health impacts of alcohol consumption, which could result from an increase in availability. Addressing Theft of Alcohol Products Regular compliance checks of alcohol retailers are conducted by, or coordinated with local law enforcement or Alcohol Beverage Control (ABC) agencies, and violators receive legal or administrative sanctions. Programs are often conducted as part of multicomponent, community-based efforts, and many include strategies to increase perceived risk of detection by publicizing the increased enforcement activities and cautioning proprietors against selling alcohol to minors. Experience in several states suggests that increasing store surveillance in areas where liquor is sold and refraining from displaying alcohol products might help to address theft of alcohol products. States that have experienced theft related to increased alcohol outlets also suggest it would be helpful to be able to track theft of alcohol products through store reporting. Applying taxes to alcohol products before the point-of-sale would incentivize stores to track theft and would allow the state to avoid potential losses in tax revenue.

KEY FINDINGS		RECOMMENDATIONS	RATIONALE
AREAS			
SEXUALLY TRANSMITTED DISEASES (STDs)	The findings were developed based on the literature review, data analyses, and stakeholder interviews.	The recommendations are drawn from the findings and are intended to maximize health benefits while minimizing health risks.	The recommendations are based on evidence-based materials or expert opinion.
	- STD rates have been shown to increase with increased density of alcohol outlets and alcohol consumption. - Kansas may see an increase in STDs due to this legislation.	Surveillance and Monitoring Kansas Department for Health and Environment in collaboration with Kansas Division of Alcoholic Beverage Control could consider: - Continuing to monitor STD rates, with a focus on changes in rates in areas where density of off-premise alcohol outlets increased. - Adding analysis of alcohol outlet density's impact on Kansas STD rates to appropriate projects and reports (e.g., <i>Kansas STD Report</i>). - Determining what populations are most affected by density changes and creating evidence-based interventions or preventative efforts for those populations if an association is found. Education Kansas Colleges, Universities and Schools in collaboration with the Kansas Department of Health and Environment and local health departments could consider: - Educating students about risky behaviors, including drinking and unsafe sex and associated health outcomes, such as STDs.	Surveillance and Monitoring Inclusion of analysis of alcohol outlets and STD rates in future KDHE work could help determine how strong this association is in Kansas. If the findings show a strong association, the state may consider taking appropriate preventative actions or mitigation efforts such as population-specific education campaigns. Education In order to address changes in youth consumption, the CDC <i>Community Guide</i> recommends using school-based instructional programs as a way to prevent alcohol-related negative consequences for this population.

KEY FINDINGS		RECOMMENDATIONS	RATIONALE
AREAS	The findings were developed based on the literature review, data analyses, and stakeholder interviews	The recommendations are drawn from the findings and are intended to maximize potential health benefits while minimizing potential health risks.	The recommendations are based on evidence-based materials or expert opinion.
VULNERABLE POPULATIONS	- An increase in availability of alcohol in grocery and convenience stores will likely increase youth consumption. - An increase in youth consumption could result in an increase in alcohol-related motor vehicle accidents and mortality for this population.	Surveillance and Monitoring Kansas Department of Aging and Disability Services could consider: - Including questions in the Communities That Care Survey (CTC) to determine where Kansas youth obtain alcohol products (grocery, convenience and/or liquor stores) and the type of alcohol consumed. - Continuing to partner with organizations to track and monitor youth consumption patterns using the (CTC) and providing recommendations to pertinent agencies and organizations. Enforcement Kansas Law Enforcement in partnership with the Kansas Division of Alcoholic Beverage Control could consider: - Strengthening enforcement of laws prohibiting sales to minors. Off-Premise alcohol outlets could consider: - Developing or strengthening a written policy that identifies steps that staff must take for every alcohol-related transaction (e.g., procedures for checking ID, sale refusal practice). - Training all staff before being permitted to sell alcohol (e.g., pertinent local and state laws). Resource Allocation Kansas policymakers could consider: - Allocating a portion of tax revenues from off-premise alcohol outlets to the Community Alcoholism and Intoxication Program's Fund, created in KSA 41-1126.7. The statute includes, among other provisions, a stipulation that funds be used to develop programs for prevention, education and early identification of problem drinking. - Expanding the use of the Community Alcoholism and Intoxication Programs Fund to include efforts aimed at preventing underage drinking and risky behaviors among youth.	Surveillance and Monitoring The CDC <i>Community Guide</i> recommends utilizing community partnerships to track and monitor consumption patterns in order to address negative effects that might result from increased alcohol outlet density. The Communities That Care survey can be used to track information that Kansas organizations and state agencies can use to address issues that may arise. Enforcement The CDC <i>Community Guide</i> recommends enhanced enforcement of laws prohibiting sale of alcohol to minors, on the basis of sufficient evidence of effectiveness in limiting underage alcohol purchases. One way to enhance enforcement is to ensure proper training is given to employees who sell alcohol in all types of alcohol outlets. Resource Allocation Additional state revenue could be used to offset some of the negative consequences of increased consumption. Education and prevention programs, especially for youth, have been proven to decrease problem drinking and many of the associated health outcomes (CDC <i>Community Guide</i>).

LEGEND (Summary of Changes to the Kansas Liquor Control Act)

Figure B-1. Health Impacts for Kansas

CRITERIA	DESCRIPTION
Literature Review	Increase – The literature achieves consensus that this indicator might increase. Mixed – The literature lacks consensus about this indicator's potential direction.
Data Analyses	Increase – Data analyses suggest that this indicator might increase. No effect – Data analyses suggest that this indicator might remain unchanged. Mixed – Data analyses lack consensus about this indicator's potential direction. N/A – Data analyses were not possible or performed for this indicator.
Stakeholder Projections	Increase – Stakeholders anticipated seeing an increase. Mixed – Stakeholders were divided in their opinions. N/A – Stakeholders didn't express their opinion about this issue.
Expected Health Impact	Negative – Changes may impair health. Mixed – Changes can be positive as well as negative.
Magnitude of Impact	Medium – Affects a larger number of people. Low – Affects no or very few people.
Likelihood of Impact	Likely – It is likely that impacts might occur as the result of the proposed changes. Possible – It is possible that impacts might occur as the result of the proposed changes.
Distribution	The population most likely to be affected by changes in the health factor or outcome..
Vulnerable Populations	Populations that have experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographical location.
Quality of Evidence	*** – Strong data and literature. ** – Sufficient data and literature. * – Lacks either quality data or literature.

Source: KHI HIA Liquor Project, 2014.

MAPS

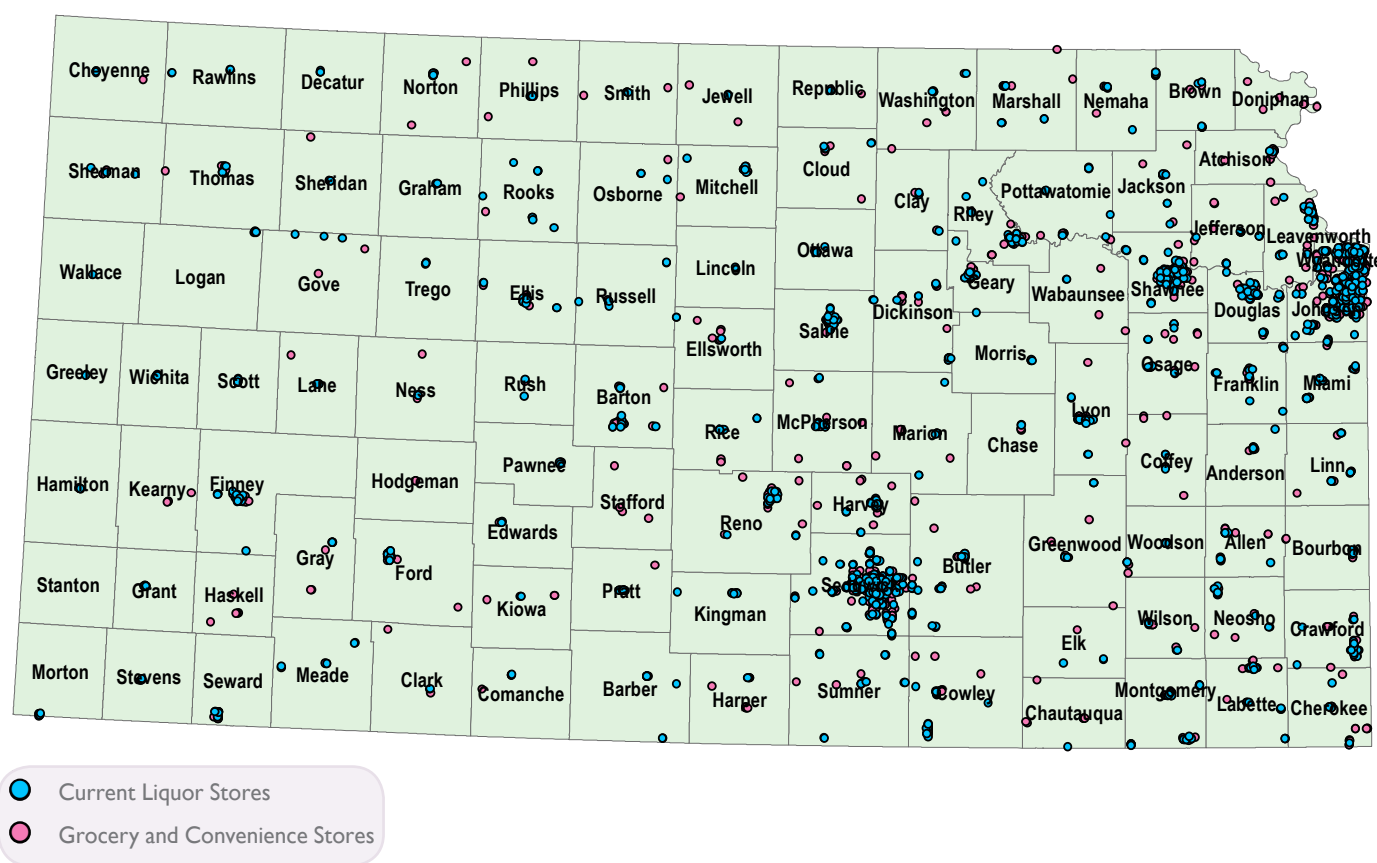
The following maps provide a picture of the current liquor licenses in the state (represented by blue dots) and the grocery and convenience stores (represented by pink dots) that may be eligible to receive a transferred license.

Until 2024, the number of licenses is capped at the current number of 753. Additionally, these licenses would be available for full-strength beer only in convenience stores, or for wine only in grocery stores. Grocery and convenience stores that accept a transferred license must be at least one-half

mile from another licensed retail alcohol outlet. Currently, about 33 percent of the grocery and convenience stores on the map are outside one-half mile radius from an existing liquor store.

After the license cap expires in 2024, all grocery and convenience stores will be eligible to apply for a liquor license that would permit the sale of full-strength beer, wine, and spirits.

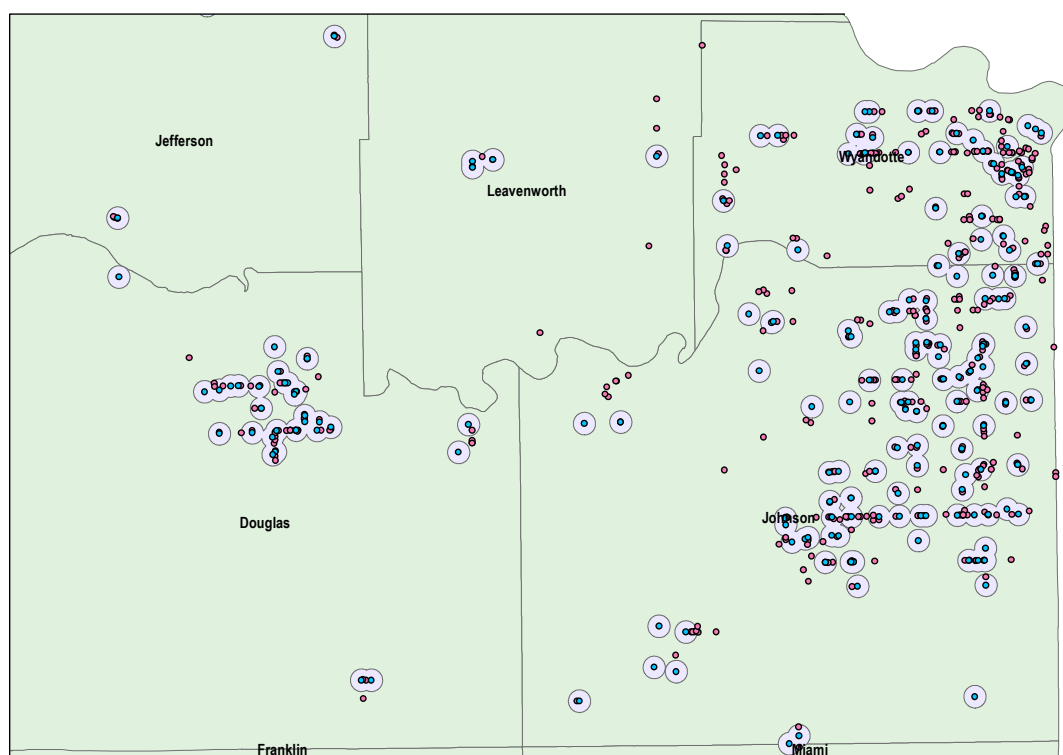
Map C-1. **Current and Potential Retail Alcohol Outlets: Kansas**



Note: Only grocery and convenience stores outside of a one-half mile radius from another licensed off-premise alcohol outlet are eligible to receive a transferred retail alcohol license until 2024.

Source: KHI analysis using GIS mapping tools, Kansas Alcoholic Beverage Control (2013) and the USDA Food Environment Atlas (2014).

Map C-2. Current and Potential Retail Alcohol Outlets: Kansas City Metro Area

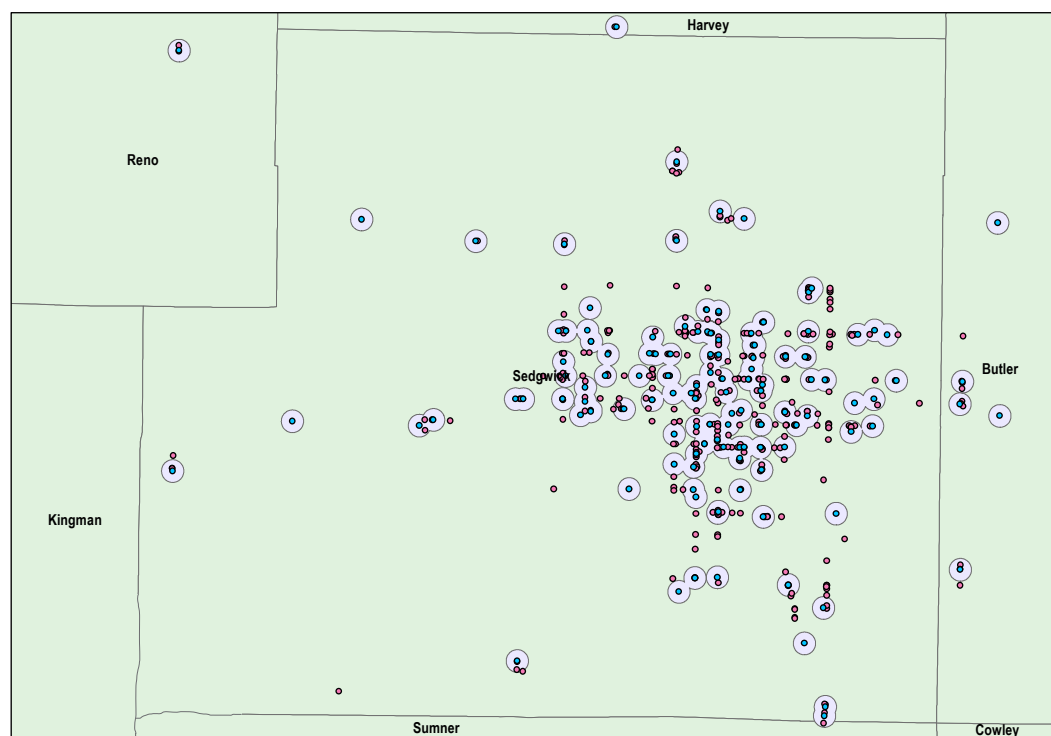


Note: Only grocery and convenience stores outside of one-half mile radius from another licensed off-premise retail alcohol outlet are eligible to receive a transferred retail alcohol license until 2024.

Source: KHI analysis using GIS mapping tools, Kansas Alcoholic Beverage Control (2013) and the USDA Food Environment Atlas (2014).

- Current Liquor Stores
- Grocery and Convenience Stores
- One-half mile radius

Map C-3. Current and Potential Retail Alcohol Outlets: Sedgwick County



Note: Only grocery and convenience stores outside of one-half mile radius from another licensed off-premise retail alcohol outlet are eligible to receive a transferred retail alcohol license until 2024.

Source: KHI analysis using GIS mapping tools, Kansas Alcoholic Beverage Control (2013) and the USDA Food Environment Atlas (2014).

- Current Liquor Stores
- Grocery and Convenience Stores
- One-half mile radius

GLOSSARY OF KEY TERMS

The table below explains the meaning of each key term used in this HIA.

KEY TERM	MEANING
Density	The number of alcohol outlets per 10,000 people.
On-premise alcohol outlet¹²⁷	Allows the licensee to offer for sale, sell and serve alcoholic liquor for consumption on licensed premises, which may be open to the public (e.g., restaurant, bar).
Off-premise alcohol outlet¹²⁸	Allows the licensee to sell and offer for sale at retail in the original package alcoholic liquor for use or consumption off of and away from the premises and other sales as authorized by K.S.A. 41-308. May serve free samples of wine, spirits and beer on the licensed premise and at adjacent premises monitored and regulated by the ABC (e.g. liquor store, convenience store).
Cereal Malt Beverage¹²⁹	Any fermented but undistilled liquor brewed or made from malt or from a mixture of malt or malt substitute or any flavored malt beverage, as defined in K.S.A. 2008 Supp. 41-2729, and amendments thereto, but does not include any such liquor which is more than 3.2 percent alcohol by weight.
Full-Strength Beer¹³⁰	A beverage, containing more than 3.2 percent alcohol by weight, obtained by alcoholic fermentation of an infusion or concoction of barley, or other grain, malt and hops in water and includes beer, ale, stout, lager beer, porter and similar beverages having such alcoholic content.
Liquor/Spirits¹³¹	Any beverage which contains alcohol obtained by distillation, mixed with water or other substance in solution, and includes brandy, rum, whiskey, gin or other spirituous liquors, and such liquors when rectified, blended or otherwise mixed with alcohol or other substances.
Binge Drinking¹³²	Binge drinking is a pattern of alcohol consumption that brings the blood alcohol concentration (BAC) level to 0.08 percent or more. This pattern of drinking usually corresponds to five or more drinks on a single occasion for men or four or more drinks on a single occasion for women, generally within about two hours.
Driving under the influence (alcohol only)¹³³	Operating or attempting to operate a vehicle while: (A) the alcohol concentration in the person's blood or breath as shown by any competent evidence, including other competent evidence, as defined in paragraph (B) of subsection (f) of K.S.A. 8-1013, and amendments thereto, is .08 or more; (C) the alcohol concentration in the person's blood or breath, as measured within two hours of the time of operating or attempting to operate a vehicle, is .08 or more; (D) under the influence of alcohol to a degree that renders the person incapable of safely driving a vehicle; (E) under the influence of any drug or combination of drugs to a degree that renders the person incapable of safely driving a vehicle; or (F) under the influence of a combination of alcohol and any drug or drugs to a degree that renders the person incapable of safely driving a vehicle.
Alcohol-related traffic accidents¹³⁴	Motor vehicle accidents where the reporting officer indicates "alcohol contributed" to the cause and/or a blood alcohol content (BAC) of 0.08 is recorded. This only applies as it relates to the driver. For example, this would not include accidents where a "sober" driver strikes an alcohol-impaired pedestrian with their vehicle.
Violent Crime¹³⁵	Violent crimes include four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Violent crimes are defined as those offenses which involve force or threat of force.
Retail Liquor License¹³⁶	A retailer license allows the licensee to sell and offer for sale at retail in the original package alcoholic liquor for use or consumption off of and away from the premises and other sales as authorized by K.S.A. 41-308. May serve free samples of wine, spirits and beer on the licensed premise and at adjacent premises monitored and regulated by the ABC. ¹³⁷
Sales Tax¹³⁸	The state retail sales tax of 5.3 percent, plus applicable local sales tax, is collected on CMB sales by CMB licensees who are not also liquor licensees (e.g., cereal malt beverages (CMB) taverns, restaurants, and grocery stores).
Excise Tax	The liquor excise tax is a 10 percent retail tax on gross receipts from the sale of liquor on-premises at private clubs, drinking establishments open to the public and caterers. It is imposed on all alcoholic beverages, including cereal malt. Seventy percent of the collection is returned to the locality from which collected, 25 percent is credited to the State General Fund and 5 percent to the Community Alcoholism and Intoxication Programs Fund. The tax is collected by the Division of Tax Operations rather than the Division of Alcoholic Beverage Control.
Enforcement Tax¹³⁹	This 8 percent tax is paid by the consumer in lieu of retail sales tax on liquor and non-alcoholic malt beverage purchased from licensed liquor retailers, farm wineries, and microbreweries. The tax is also paid by clubs and drinking establishments on purchases they make from retail liquor stores and from wholesalers.
Gallonage Tax¹⁴⁰	For the purpose of raising revenue, a tax is imposed upon the manufacturing, using, selling, storing or purchasing alcoholic liquor, cereal malt beverage or malt products in this state or a federal area at a rate of \$.18 per gallon on beer and cereal malt beverage; \$.20 per gallon on all wort or liquid malt; \$.10 per pound on all malt syrup or malt extract; \$.30 per gallon on wine containing 14% or less alcohol by volume; \$.75 per gallon on wine containing more than 14% alcohol by volume; and \$2.50 per gallon on alcohol and spirits.

DATA SOURCES AND MEASURES

DATA SOURCE	MEASURE(S)
General Demographics	
U.S. Census Bureau population estimates, 2013	• Kansas population • State populations for all 50 states and Washington, D.C.
American Community Survey, 2012	• Race and ethnicity of Kansas residents • Percent of adults ages 25+ with a high school degree or higher • Percent of adults ages 25+ with a bachelor's degree or higher • Percent of adults living below the federal poverty level • Median household income (state and counties)
Consumption	
National Institute for Alcoholism and Alcohol Abuse (NIAAA), 2011	• Annual per capita gallons of alcohol consumed
Behavioral Risk Factor Surveillance System, Centers for Disease Control, 2012 (state-level BRFSS)	• Percent of adults who have had at least one drink in the past 30 days • Percent of adults who are binge drinkers (males having five or more drinks on one occasion, females having four or more on one occasion) • Percent of adults who are heavy drinkers (adult men having more than two drinks per day, adult women having more than one drink per day) • Average number of drinks consumed per month
Behavioral Risk Factor Surveillance System, Kansas Department of Health and Environment, 2012 (county-level BRFSS)	• Percent of adults who have had at least one drink in the past 30 days • Percent of adults who are binge drinkers (males having five or more drinks on one occasion, females having four or more drinks on one occasion) • Percent of adults who are heavy drinkers (adult men having more than two drinks per day, adult women having more than one drink per day) • Average number of drinks consumed per month
Kansas Department of Revenue, 2012	• Excise Tax revenue • Enforcement Tax revenue
Youth Communities That Care Survey, 2013	• Percent of youth with ten or more drink occasions per lifetime (more than just a few sips) • Percent of youth with ten or more drink occasions in the past month (more than just a few sips) • Percent of youth who report drinking five or more alcoholic drinks in a row more than once in the past two weeks • Percent of youth reporting family history of a drinking problem • Percent of youth responding "no" to the question, "If a kid drank some beer, wine or hard liquor (for example, vodka, whiskey or gin) in your neighborhood, or the area around where you live, would he or she be caught by police?" • Percent of youth responding "Easy" to the question, "If you wanted to get some beer, wine, or hard liquor (for example, vodka, whiskey, or gin), how easy would it be for you to get some?" • Percent of youth responding "Not wrong at all" to the question, "How wrong do your parents feel it would be for you to: drink beer, wine, or hard liquor (for example, vodka, whiskey, or gin) regularly (at least once or twice a month)?"

DATA SOURCE	MEASURE(S)
Alcohol Outlets	
County Business Patterns, 2011 (NAICS codes)	- Number of liquor stores (NAICS Code: 445310) - Number of grocery stores (NAICS Codes: 445110, 446110, 452910) - Number of convenience stores (NAICS Code 445120, 447110)
Kansas Division of Alcoholic Beverage Control, 2013	- Number (and addresses) of off-premise liquor licenses - Number of on-premise liquor licenses - Number of off-premise CMB outlets - Number of on-premise CMB outlets - County liquor by the drink designation (Wet, Dry, 30% food requirement)
Driving Under the Influence (DUI) Arrests and Alcohol-related Traffic Accidents	
Kansas Department of Transportation, 2013	- Percent of all motor vehicle accidents that were alcohol-related - Percent of all motor vehicle deaths that were alcohol-related - Alcohol-related traffic mortality rate per 10,000 people age 15+
Kansas Department of Health and Environment, 2009–2011	Unintentional injury mortality per 100,000
Crime	
Kansas Bureau of Investigation, 2012	Number of violent crimes per 1,000 people in Kansas
Federal Bureau of Investigation, 2012	Number of violent crimes per 100,000 people
Sexually Transmitted Diseases	
Kansas Department of Health and Environment, 2012	STD rate per 1,000 people (chlamydia, gonorrhea, and syphilis combined)
America's Health Rankings, 2013	STD rate per 100,000 people (chlamydia)

Source: KHI HIA Liquor Project, 2014.

HIA KEY INFORMANT INTERVIEWS/INFORMED CONSENT

The Kansas Health Institute (KHI), in collaboration with The University of Kansas School of Medicine – Wichita (KUSM-W), is conducting a Health Impact Assessment on proposed state legislation which would permit convenience and grocery stores to hold retail liquor licenses, allowing them to sell wine, spirits and higher alcohol content beer. A Health Impact Assessment is policy tool, which combines the best available research, data and community input in order to project the potential health impacts of a decision.

The purpose of this interview is to bring varying perspectives into the health impact assessment analysis, and you have been identified as a potential key stakeholder. We will also talk with additional relevant stakeholders from Kansas communities as well as state policymakers about the potential health impacts of this legislation. As a part of the HIA process, we will ask you to identify any possible health-related impacts this legislation, if passed, may have on the community.

While your participation is invaluable to the process, it is voluntary. This interview should take approximately 30–45 minutes of your time. If at any time you need more explanation or would like to skip a question, please let us know.

In our HIA report, we will include the perspective from you and other stakeholders about how the proposed legislation may impact health. All responses will be kept strictly confidential and no statements will be attributed directly to you unless we get your consent to do so. If that is the case, we will follow up with you at a later date. Although we will not attribute your responses without your permission, we would like to acknowledge you for your contributions to the project in the final report along with the other key informant interview participants. Acknowledging your participation in the report is also voluntary and at your discretion. Is it okay with you that we acknowledge your participation?

If yes, please initial here. _____

If you have any questions about this project or this interview, please email (ssmith@khi.org) or call (785) 233-5443 and ask for Sheena Smith.

Signature

Health Impact Assessment Key Informant Questions

The Kansas Health Institute (KHI), in collaboration with The University of Kansas School of Medicine – Wichita (KUSM-W), is conducting a Health Impact Assessment on proposed state legislation which would permit convenience and grocery stores to hold retail liquor licenses, allowing them to sell wine, spirits and higher alcohol content beer. A Health Impact Assessment is a policy tool, which combines the best available research, data and community input in order to project the potential health impacts of a decision.

The purpose of this interview is to bring varying perspectives into the health impact assessment analysis, and you have been identified as a potential key stakeholder. We will also talk with additional relevant stakeholders from Kansas communities as well as state policymakers about the potential health impacts of this legislation. As a part of the HIA process, we will ask you to identify any possible health-related impacts the proposed liquor licensing legislation may have for the community.

While your participation is invaluable to the process, it is voluntary. This interview should take approximately 30–45 minutes of your time. In our HIA report, we will include the perspective from you and other stakeholders about how the proposed legislation may impact health. All responses will be kept strictly confidential and no statements will be attributed directly to you unless we get your consent to do so. If that is the case, we will follow up with you at a later date. Although we will not attribute your responses without your permission, we would like to acknowledge you for your contributions to the project in the final report along with the other key informant interview participants. Acknowledging your participation in the report is also voluntary and at your discretion. Is it ok with you that we acknowledge your participation?

If you have any questions about this project or this interview, please email (ssmith@khi.org) or call (785) 233-5443 and ask for Sheena Smith.

Part I. Liquor Legislation

We will first start off by asking a few questions related to the liquor licensing legislation.

1. Are you familiar with the proposed state legislation regarding sale of wine and spirits in grocery and convenience stores?
2. Do you/your organization have a specific position on this legislation? If so, what is that position? Please explain.
3. In your opinion, what are the primary arguments of those in support of this legislation?
4. In your opinion, what are the primary arguments of those in opposition to this legislation?
5. Please describe your involvement in the legislative process regarding the proposed expansion of retail liquor licensing in Kansas, if any (e.g. testimony, advocacy, decision maker).
6. How might this legislation impact you/your organization/your constituents if passed?

Part II: Health Impacts of the Legislation

So far we have largely asked a few general questions about the legislation, but now I would like you to think more specifically about the health impacts of legislation to expand retail liquor licensing in Kansas.

1. How do you define a healthy community?
2. What kinds of social and environmental conditions contribute to the health of a community?
3. In your opinion, which of the measures or issues you mentioned above are most essential to the overall health of the community?
4. Do you think the proposed legislation could affect the health of Kansas communities? If so, how?
 - a. What potential positive impacts could result from the proposed legislation, if any? Please explain.
 - b. What negative consequences do you anticipate, if any? Please explain.
5. Do you think that health considerations are part of the dialogue around the legislation? If not, what health considerations are important, if any?
6. Do you think that this legislation would impact certain groups over others (e.g. minorities, youth, elderly, etc.)? If so, please explain. If not, why?

Part III: Pathway Diagram

A pathway diagram is a visual representation of how the changes to the Kansas liquor laws could impact health. For example, we looked at relevant literature and data to determine how the legislation could ultimately impact health (e.g., liquor licenses expansion, change (increase) in the number of locations where Kansans could purchase wine or spirits, impact on DUI – impact on mortality).

Please take a minute to review the diagram on this handout and let me know if you have any questions about how to “read” it or what it means. (PAUSE)

1. Do the pathways, which are the connections or lines between the boxes, look accurate to you?
2. Thinking about the factors that influence health — the middle two columns — what factors would you add to the diagram, if any?
3. What would you change, if anything?

ENDNOTES

1. Please see Appendix C, pages 69–70, for maps that illustrate the number of grocery and convenience stores that would be eligible to sell wine or beer from 2019 until 2024.
2. For county-to-county comparisons, density of off-premise alcohol outlets is defined as the number of outlets per 10,000 people within each county. For national comparisons, density of off-premise alcohol outlets is defined as the number of outlets per 10,000 people in the state.
3. Off-premise alcohol license (outlet) — Allows the licensee to sell and offer for sale at retail in the original package alcoholic liquor for use or consumption off of and away from the premises and other sales as authorized by K.S.A. 41-308.
4. Heller, J., Malekafzali, S., Todman, L., Wier, M. (2013.) *Promoting Equity Through the Practice of Health Impact Assessment*. Available online at http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7D/PROMOTINGEQUITYHIA_FINAL.PDF
5. United States Census Bureau. (2013). *State and County QuickFacts: Kansas*. Retrieved from <http://quickfacts.census.gov/qfd/states/20000.html>
6. United States Census Bureau. (2012). *State and County QuickFacts: Kansas*. Retrieved from <http://quickfacts.census.gov/qfd/states/20000.html>
7. Ibid.
8. United States Census Bureau. (2012). *2012 American Community Survey 1 Year-Estimates*. Retrieved from <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>
9. Ibid.
10. Rural is defined as 6–19.9 people per square mile. Population densities are calculated using land area, not total area. Source: *Kansas Annual Summary of Vital Statistics*. (2012). Retrieved from http://www.kdheks.gov/hci/as/2012/AS_2012.pdf
11. Frontier is defined as less than 6 people per square mile. Population densities are calculated using land area, not total area. Source: *Kansas Annual Summary of Vital Statistics*. (2012). Retrieved from http://www.kdheks.gov/hci/as/2012/AS_2012.pdf
12. Urban is defined as 150 people or more per square mile. Population densities are calculated using land area, not total area. Source: *Kansas Annual Summary of Vital Statistics*. (2012). Retrieved from http://www.kdheks.gov/hci/as/2012/AS_2012.pdf
13. Semi-Urban is defined as 40–149.9 people per square mile. Population densities are calculated using land area, not total area. Source: *Kansas Annual Summary of Vital Statistics*. (2012). Retrieved from http://www.kdheks.gov/hci/as/2012/AS_2012.pdf
14. Kansas Department of Health and Environment, Bureau of Community Health Systems, Kansas Primary Care Office. (2014). *Primary Care Health Professional Underserved Areas Report*. Retrieved from <http://www.kdheks.gov/olrh/download/PCUARpt.pdf>
15. United Health Foundation. (2013). *America's Health Rankings*. Available online at <http://www.americashealthrankings.org>.
16. National Institute for Alcohol Abuse and Alcoholism (NIAAA). *Apparent Alcohol Consumption for States, Census Regions, and the United States, 2011*. Retrieved from http://pubs.niaaa.nih.gov/publications/surveillance97/tab2_11.htm.
17. Cereal Malt Beverage (CMB) — Any fermented but undistilled liquor brewed or made from malt or from a mixture of malt or malt substitute or any flavored malt beverage, as defined in K.S.A. 2008 Supp. 41-2729, and amendments thereto, but does not include any such liquor which is more than 3.2 percent alcohol by weight.
18. On-premise license (outlet) — Allows the licensee to offer for sale, sell and serve alcoholic liquor for consumption on licensed premises, which may be open to the public (e.g., restaurant, bar).
19. National Academy of Sciences. (2011.) *Improving Health in the United States: The role of health impact assessment*. Washington, DC: The National Academies Press.
20. Centers for Disease Control and Prevention. (2013). Alcohol Related Disease Impact (ARDI). Retrieved from http://apps.nccd.cdc.gov/DACH_ARDI/Default.aspx
21. Nelson, D. E., Jarman, D. W., Rehm, J., Greenfield, T. K., Rey, G., Kerr, W. C., ... & Naimi, T. S. (2013). Alcohol-attributable cancer deaths and years of potential life lost in the United States. *American Journal of Public Health*, 103(4), 641–648.
22. Krenz, M., & Korthuis, R. J. (2012). Moderate ethanol ingestion and cardiovascular protection: From epidemiologic associations to cellular mechanisms. *Journal of Molecular and Cellular Cardiology*, 52(1), 93–104.
23. Chaloupka, F. J., Grossman, M., & Saffer, H. (2002). The effects of price on alcohol consumption and alcohol-related problems. *Alcohol Research and Health*, 26(1), 22–34.
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