

# Health Impact Assessment Report

## Alcohol Environment - Village of Weston, WI



### **Abstract**

A Health Impact Assessment (HIA) is a mechanism used to judge how the health of a population is affected by a particular policy or project. The HIA performed in the Village of Weston, WI sought to assess the impact of an alcohol policy on the community's health, specifically underage drinking and drinking and driving behaviors. While there was no specific policy under review at the onset of the project, strategies to limit liquor licensing practices at the municipal level were evaluated, specifically a limit on future Class A alcohol licenses. Access to alcohol, measured by the density of alcohol outlets, was identified as the community's primary concern and became the focus of the assessment. The investigation of existing conditions generated the following recommendations: A moratorium on future Class A alcohol licenses, Development of a Policy Exemption Committee, Development of an Alcohol License Review Board, Implementation of consistent health behavior surveys among youth, and finally seeking the support of the Marathon County Board of Health for future HIA projects within the County. Regardless of a decision to adopt the recommendations which will be presented to the Village Board, the HIA was successful in building important relationships to further the discussion about alcohol misuse prevention in the community.

## Table of Contents

Introduction.....	3
Community Context.....	4
HIA Process	
Screening.....	5
Scoping.....	8
Assessment.....	12
Reporting.....	29
Monitoring.....	31
Conclusion.....	33
Appendices.....	34

## Introduction

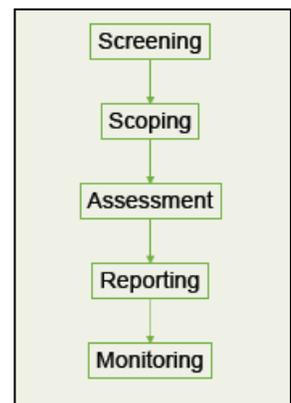
Alcohol plays an undeniable role in Wisconsin's history, economy and environment. Over time, alcohol has also become an acceptable part of the state's culture, evidenced by some of the highest rates of binge drinking, chronic heavy drinking, underage drinking, and self reported drinking before driving in the nation. The problem of high-risk alcohol consumption is occurring in part because of availability, discounted alcohol prices, and the promotion of alcohol use. Alcohol availability can be quantified by the number of outlets selling alcohol, or the "outlet density" within a given area or population. Research suggests that reducing the number of alcohol outlets within communities can have positive outcomes on binge drinking, underage drinking and drinking and driving.

Weston, a community that promotes healthy lifestyles, expressed interest in addressing the issue of alcohol misuse within the Village. More specifically, Village leaders requested that local alcohol policies be reviewed to ensure current laws were maximizing the health and safety of residents. A method to ensure that policies consider the health of residents is a Health Impact Assessment (HIA).

According to the International Association for Impact Assessment, an HIA is formally defined as a "combination of procedures, methods and tools that systematically judges the potential and sometimes unintended effects of a proposed project, plan or policy on the health of a population and the distribution of those effects within the population" (2006). An HIA also proposes solutions to manage any negative effects.

There are five main steps to an HIA process are outlined below.

- *Screening* - determines the added value and the potential impact of conducting an HIA
- *Scoping* - determines the focus of the HIA, including deciding on related indicators and research questions
- *Assessment* - gathering information on the existing conditions and potential health impacts related to the proposed plan
- *Reporting* – disseminating the recommendations and/or mitigation strategies to decision-makers, stakeholders, and to community members
- *Monitoring* - evaluates the ways in which the HIA recommendations impact the proposed plan's implementation



While there are varying degrees in which HIA's are implemented in communities, the HIA in the Village of Weston to review local alcohol policies was performed as a "rapid" HIA over the course of 6 months.

## Background: Community Context

Marathon County, WI is centrally located and is the largest county in the state, at 1,584 square miles. Within the county, the Village of Weston borders of the county seat of Wausau to the southeast. The Village population is steadily growing and holds 14,868 of the county's 134,063 residents. Of this population, the predominant race is Caucasian (87.7%) with representation from the Asian (8.7%) and Hispanic (2.0%) communities. 73% of the population within the Village is over the age of 18. While local income data were not available, U.S. Census information estimates the county's median income level (\$54,649) to be slightly higher than the state's (\$52,092).

Biennially, Marathon County conducts a needs assessment to identify areas of improvement. The resulting LIFE Report (2009-2011) lists the following five calls to action: Alcohol Use and Abuse, Food and Housing, Domestic and Child Abuse, Early Childhood Success, and Healthy Lifestyles. The Village of Weston Board also takes the quality of life of residents very seriously and created a Quality of Life Plan with goals in seven areas. One of those areas is "Vitality" which includes goals related to the environment, public safety, and health. The Board strongly believes in a healthy, vital community and is proud to celebrate many successes, some of which are below.



- "Healthy Weston Fest", a family oriented summer festival known for not serving alcohol which is usually associated with outdoor summer festivals
- Smoke-free ordinance prior to the state-wide ordinance
- Designated a Tree City USA Community in 2011
- Awarded the "Silver" Water Star for excellence in the protection of surface water and ground water in 2011
- Recognized as Legacy Green Tier Community - for pledging to go beyond just basic regulatory compliance to protect the environment in 2010
- United Way of Marathon County-Emerging Leaders - "Champion of Change Award" for the Born Learning Trail project which provides an interactive, playful environment for parents, grandparents and caregivers to provide an outdoor excursion (2010)
- Awarded for "Outstanding Service in supporting Domestic Violence Victims" presented by the Women's Community (2010)

There have also been specific efforts to curb the impact of alcohol in the Village including (but not limited to) grants to decrease drinking and driving by increasing law enforcement patrol, youth groups to address youth access to alcohol, and resident representation on the Marathon County Alcohol and other Drug Partnership Council. While barriers associated with passing a policy to prevent alcohol misuse in the Village do not appear to be any greater than in any other community, they may still impact the process. Passing policies are often difficult on a quick timeline. Also, passing a policy that could impact the economic development of a community is a potential barrier, especially in today's economic climate. While these barriers exist, they would likely impact any policy presented to the Village Board and are not reason to forego HIA implementation. Therefore, the HIA process began in November, 2010 and ended in May, 2011. The five steps of the HIA process are detailed in the report below.

**Step 1. Screening:**  
***Determine whether or not an HIA is warranted***

**Goal of HIA**

This project assessed the potential impacts of a retail outlet density policy on community health and development.

**Background**

The misuse and abuse of alcohol has been repeatedly shown to have negative impacts on individual health outcomes. The HIA to take place within the Village of Weston sets forth to assess that impact of alcohol licensing on community health outcomes. Environmental factors, such as policies and procedures relating to the sale, distribution and consumption of alcohol will be reviewed to determine their impact on the health of the community.

As the HIA began, a specific policy recommendation was not before the Village Board related to alcohol; however the Board was receptive to hearing and considering how they could improve local policies relating to the sale and distribution of alcohol to protect the health of Weston residents. It is hypothesized that high-risk alcohol consumption is occurring in Marathon County in part because of easy retail access, discounted alcohol prices and the promotion of alcohol use. These factors are associated with “access” to alcohol. Research suggests that when individuals have greater access to alcohol, they drink with greater frequency. When a community experiences higher rates of alcohol consumption among its residents, problems associated with alcohol use (violence, crime, alcoholism, driving after drinking, underage drinking, etc.) often occur with greater frequency.

With alcohol’s large role in Wisconsin’s economy and environment, its use has become the norm. As mentioned, Wisconsin experiences some of the highest rates of binge drinking, chronic heavy drinking, underage drinking, and self reported drinking before driving in the nation. More locally, Marathon County experiences higher rates of current use of alcohol among adults 18+, binge drinking among adults 18+ and higher rates of alcohol related hospitalizations than the state average.

**Added Value of HIA**

It is hypothesized that should the Village of Weston implement regulations relating to the sale, distribution and consumption of alcohol, that this would have an impact on community health, potentially in terms of alcohol related driving crashes, underage drinking and the misuse of alcohol. While it is unclear whether or not the Village Board would have considered the community’s health when implementing such a policy, it is likely that the Village Board would *not* have considered the extent of health impacts related to alcohol regulation.

The decision-making authority within the Village of Weston lies within the Village Board. Specifically the Village Administrator is a key decision maker relating to any policies proposed within the Village. The Village Administrator has been a partner in various community health issues and has shown great interest in examining how alcohol impacts the Village. He and the Board are open to recommendations from the County Health Department and residents within

the Village. Portraying how the regulation of alcohol access might significantly impact the health of Weston residents may certainly influence their decision making process. The issue of alcohol access is not unique to Weston and other decision makers may benefit from reviewing the results of this HIA in surrounding municipalities, such as Schofield, Wausau and Rib Mountain. The Marathon County Board of Health might also find great benefit in the HIA findings. Presentations of these findings will be delivered to multiple decision making groups within the County in order to share the benefits of implementing the HIA process into policy related decisions.

### **HIA feasibility**

The timeline for passing an alcohol related policy is dependent on the Village leadership setting the agenda to include the action. It is unknown whether policy action would be taken before the termination of this project; however the assessment results will be completed and communicated. The Village Board decision making process includes the following: identification of a community issue; community input; subcommittee consideration of policy; subcommittee policy recommendation to the Village Board; Board consideration (possibly including a public hearing); and Board action.

A review of relevant literature, existing policies and procedures and local alcohol related data (i.e. alcohol related crashes, underage drinking citations, violence, etc.) was analyzed in order to assess current conditions in the Village of Weston. Further research such as focus groups, community surveys and stakeholder interviews were considered in order to gather qualitative data from Village residents, business owners and leaders. GIS mapping provided the location of current alcohol outlets and also allow for the comparison of other data-sets (i.e. alcohol related crashes, underage drinking citations, violence, etc.). From the review of existing conditions, projections of the potential health impacts of alcohol regulation were made, as well as, strategies to address these issues.

The Marathon County Health Department lead this project, specifically, the assigned Health Educator. The Marathon County Alcohol and Other Drug Partnership Council, a local nonprofit organization, was informed of this project and was engaged in various efforts.

### **Stakeholder involvement**

The Village Administrator and the Chief of Police (Everest Metro Police Department) have demonstrated leadership on this community health issue and asked to partner with the Marathon County Health Department on the HIA process. These two stakeholders, as well as the Village Clerk, have been provided with materials related to the HIA process and believe that reviewing (and potentially revising) current alcohol regulations will help curb the current alcohol issues, therefore positively impacting the health of Weston residents. This key group of stakeholders served as an advisory committee to decision making within the HIA process, however greater community involvement was necessary. While the advisory group is immensely involved in the process, the Marathon County Health Department staff led the HIA process, participating in phone calls with the WI Department of Health Services, Division of Public Health, Bureau of Environmental and Occupational Health (BEOH) and submitted all necessary reports.

**Step 2: Scoping:**  
**Determine which health impacts to evaluate and the methods for analysis**

During the Scoping Phase, the following steps were taken to determine which health impacts to focus on and which methods would be used to analyze those impacts.

**Stakeholder Involvement and Community Input**

The advisory committee for the Village of Weston HIA includes the Village Administrator; the Everest Metro Chief of Police, the Village Clerk and Marathon County Health Department Staff, The Village Board President also joined the advisory committee later in the process. The committee was created based upon their expertise of local policies and the enforcement of such policies. During the scoping phase, the advisory committee agreed to the following: moving forward with an HIA process within the Village of Weston, specifically reviewing policies relating to alcohol licensing and therefore outlet density, and focusing efforts on how alcohol licensing affects drinking and driving violations and underage drinking within the Village. Marathon County Health Department staff created a work plan for the HIA process as well as a timeline for its completion. A brief literature review commenced and early findings were presented to the advisory committee.

**Stakeholders and Roles**

The advisory committee serves as the decision making group for the HIA process; selecting which policy to review, prioritization of health indicators, as well as, determining which stakeholders to involve throughout the HIA process. The advisory committee has generated a list of potential stakeholders (Village residents, Village Board members, license holders, youth, etc.) to contact to provide further information on existing conditions within the village and feedback relating to the policy itself. The advisory committee brainstormed data sets available (alcohol licenses, crime reports, zoning information, etc.) and generated GIS maps reflecting correlations of alcohol outlets on multiple indicators.

**Scoping Meeting**

The staff from the Marathon County Health Department hosted a scoping meeting with the BEOH staff in Wausau, WI on 12/16/10. This meeting provided clarity and focus on the project within the Village of Weston. Roles of the staff and advisory committee were determined, allowing the Marathon County Health Department Staff to take the lead on the HIA process, with strong input from the advisory committee. The goal of the HIA was determined – *to assess the impact of alcohol licensing on health*. The specific policies considered were limitations on alcohol license density. The health determinants prioritized for the assessment were drinking and driving and underage drinking in the Village of Weston with several indicators reflected in the Scoping Worksheet (Figure 2).

The decision-maker of such a policy is ultimately the Village Board. This Board may be influenced by input from the Village Administrator, the Chief of Police, bar owners and Village residents. While the primary audience for the HIA report is the Village Board, we must not neglect to address our secondary audiences who influence the decision makers, such as the bar owners, the WI Tavern League and the residents within the Village.

Alternatives to placing a moratorium on all alcohol licenses distributed would be to only limit certain classes of licenses, such as Class A's which are issued for the purchase of alcohol to be consumed "off-site" (grocery stores, gas stations, etc.). In WI, per state statute, a quota on Class B licenses already exists, making it difficult to obtain a Class B license once the quota is fulfilled. Below are further definitions of the alcohol licenses in WI.

- "Class A" – a license for liquor consumed off-premise (ex: liquor sold at a liquor store)
- "Class B" – a license for liquor consumed on-premise (ex: liquor sold at a restaurant)
- Class "A" – a license for fermented malt beverages consumed off-premise (ex: beer sold at a liquor store)
- Class "B" – a license for fermented malt beverages consumed on-premise (ex: beer sold at a restaurant)

Another alternative would be to create an outlet density plan, giving consideration to the geographic location of the licenses issued. A policy could be imposed restricting the number of licenses issued within a particular geographic area due to current "over-concentration", meaning there are already several alcohol outlets within that specific area.

### Pathway Diagram and Scoping Worksheet

During the scoping meeting, a pathway diagram (Figure 1) linking the proposed policy to various health outcomes was generated. Research questions were also developed to help guide the assessment phase of the HIA process and are reflected in the scoping worksheet below (Figure 2).

Figure 1: Pathway Diagram

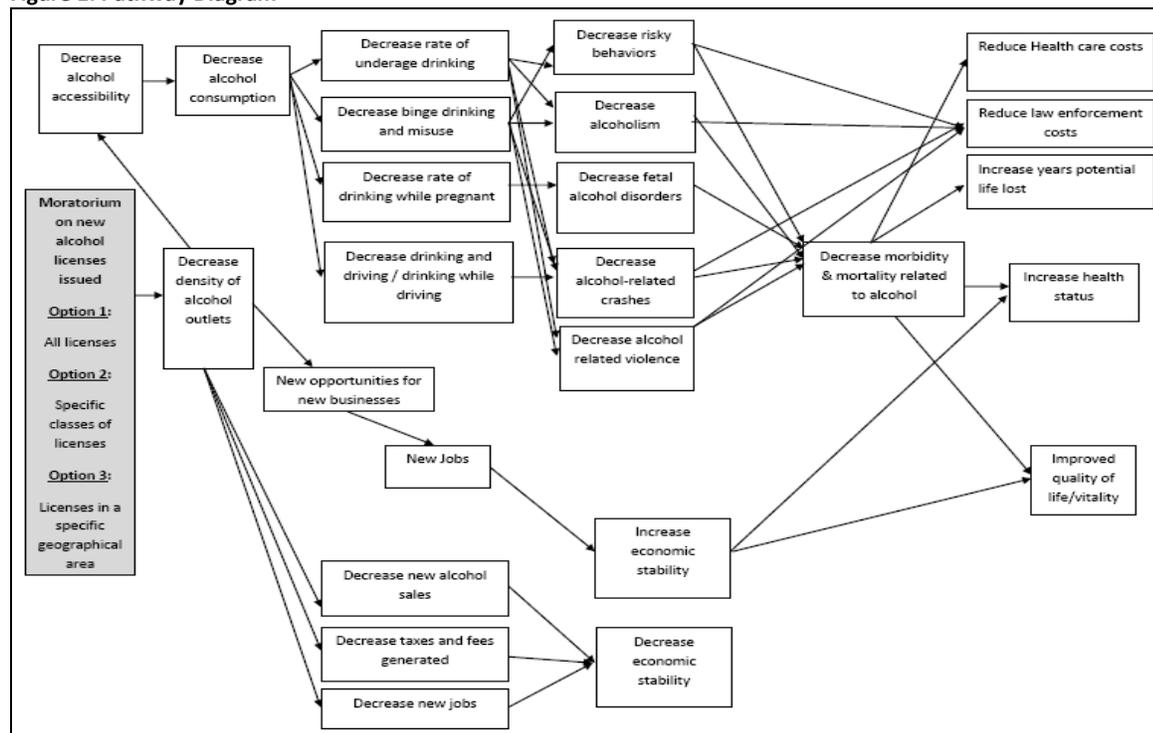


Figure 2: Scoping Worksheets

Project:	Alcohol Licensing in Weston, WI					
Health Determinant:	Alcohol Accessibility and Drinking and Driving					
Geographic Scope:	Village of Weston, WI					
Existing Conditions Research Questions	Impact Research Questions	Indicators	Data Sources	Methods	Priority	Notes
<b>Proximate Effects</b>						
How many alcohol licenses exist in the Village of Weston?	Will limiting the number of alcohol licenses distributed impact the alcohol outlet density (access to alcohol) in the Village of Weston?	Number of licenses, by type.	Village Clerk records, Zoning records	GIS mapping of outlets, lit review	High	
What is the projected population growth of Weston?	Will a policy to limit new licenses have an impact on the density (outlets per person) of alcohol outlets?	Outlet density (outlet/person)	Village Clerk records	GIS mapping, projection calculations	Med	
Where are the current liquor licenses geographically?	Does the spatial distribution of liquor licenses impact alcohol use?	Spatial density	Village Clerk records	GIS mapping, Lit review	High	
	Does spatial distribution impact drinking and driving?	Locations of drinking and driving citations and accidents	Everest Metro Police reports/Community Health Assessment	GIS mapping, lit review		
	Does spatial distribution impact underage drinking?	Locations of underage drinking citations	Everest Metro Police reports/YRBS	GIS mapping, lit review		
Existing Conditions Research Questions	Impact Research Questions	Indicators	Data Sources	Methods	Priority	Notes
What are the current rates of drinking and driving arrests?	How does reducing the alcohol outlet density (access to alcohol) impact the number of arrests for drinking and driving in the Village of Weston?	Number of arrests of drinking and driving	Everest Metro Police reports, Village Clerk records	Lit review, qualitative data	High	
		Number of alcohol related crashes	Everest Metro Police Reports	Lit review		
		Rate of youth riding with someone who has been drinking	YRBS	Lit review		
		Rate of youth drinking and driving	YRBS, Everest Metro Police Reports	Lit review		
		Village Auto Insurance rates related to drinking and driving risk	WI Commissioner of Insurance	Lit review, insurance calculations		
What is the existing enforcement practice for drinking and driving?	How would a policy to limit licenses impact enforcement practices?	Number of arrests for drinking and driving	Everest Metro Law Enforcement	Interview	High	
What are the current rates of underage drinking citations?	How does reducing the alcohol outlet density (access to alcohol) impact underage drinking?	Number of underage drinking citations	Everest Metro Police Reports	Lit review	High	

Existing Conditions Research Questions	Impact Research Questions	Indicators	Data Sources	Methods	Priority	Notes
What is the existing enforcement practice of underage drinking?	How would a policy to limit licenses impact enforcement practices?	Number of citations for underage drinking	Everest Metro Law Enforcement	Interview	High	
Where do underage drinkers purchase alcohol	How would limiting licenses impact where/if underage drinkers purchase alcohol?	Number of IDs collected (fake or underage)	Focus groups YRBS	Lit review		
<b>Health Outcomes</b>						
What are the current rates of morbidity and mortality due to alcohol-related crashes in the Village Weston?	Will reducing the alcohol outlet density (access to alcohol) impact morbidity and mortality from alcohol-related crashes?	Number of alcohol-related crashes causing injury	Everest Metro Police reports, WI DOT reports, hospitalization/ER records	GIS mapping of outlets and crashes, lit review.	High	
<b>Vulnerable Populations</b>						
Is underage drinking a problem?	How would a policy to limit alcohol license density impact underage drinking?	Youth access to alcohol treatment, health care costs	NIAA, CDC, SAMHSA	Literature review	High	
Is drinking a problem in low income populations?	How would a policy to limit alcohol license density place disproportionate burdens on low income populations?	Disproportionate rates of alcoholism and problems due to alcohol	NIAA, CDC, SAMHSA	Literature review	High	

### ***Step 3. Assessing Risks and Benefits:***

***Assess impacts using existing data and research methods to determine the magnitude and direction of potential health impacts***

The assessment phase of the HIA involved a literature review and data collection of existing conditions related to alcohol consumption, the consequences of alcohol use and the impact of alcohol outlets on these and the indicators identified in the scoping phase. This data provides evidence that alcohol outlet density not only impacts alcohol consumption, but also underage drinking and drinking and driving behaviors.

Data were collected through community interviews, surveys, GIS and photo mapping assessment of the community to expose existing conditions within the Village of Weston.

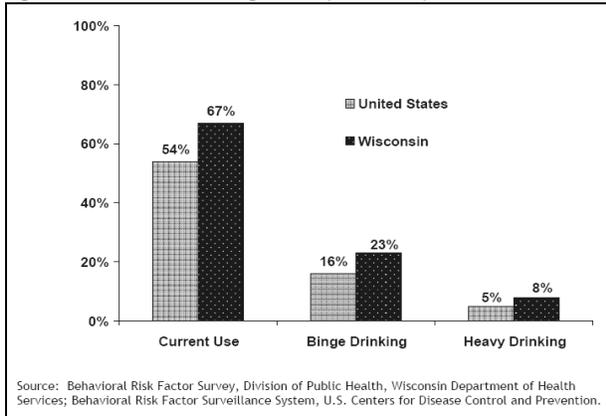
### **Literature Review & Existing Conditions – Alcohol Consumption**

Alcohol is deeply rooted in Wisconsin’s culture, playing a role in early economic growth and political history. The state has a deep history in beer making, with Milwaukee as the home of Miller Brewing and other smaller breweries. Wisconsin’s major league baseball team is the Milwaukee Brewers and their stadium is Miller Park. Milwaukee however, is not the only brewing hub in the state. Other cities are known for their brewing industry, such as Stevens Point, Chippewa Falls, and La Crosse. Many people have made a hobby of home brewing, which is easily done with kits that are readily available. Additionally, Wisconsin has a number of wineries.

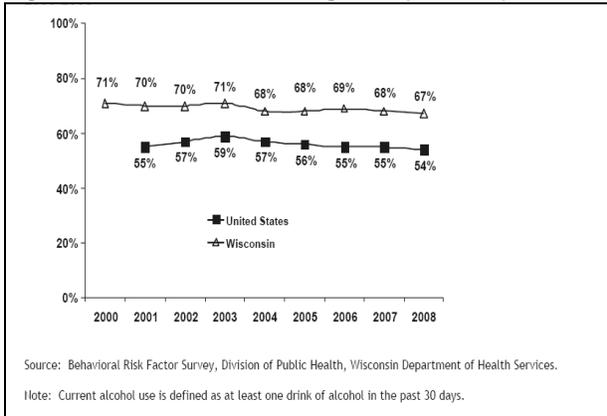
Locally, Marathon County’s cultural heritage is primarily German and Polish, of which alcohol has been used within families for generations. Alcohol use within the family setting has been ingrained in WI culture and is also supported by law. Wisconsin state law allows minors to drink alcohol with their parents, both in their home and in public places. An active WI Tavern League contributes to a supportive political environment for the alcohol industry.

Given alcohol’s presence in the culture, rates of use and abuse in Wisconsin are among the highest in the nation, for some indicators, the highest. While trends appear to be declining over time among adults, 18 years and older, WI leads the country in consumption, binge drinking and heavy drinking (Epidemiological Profile 2010).

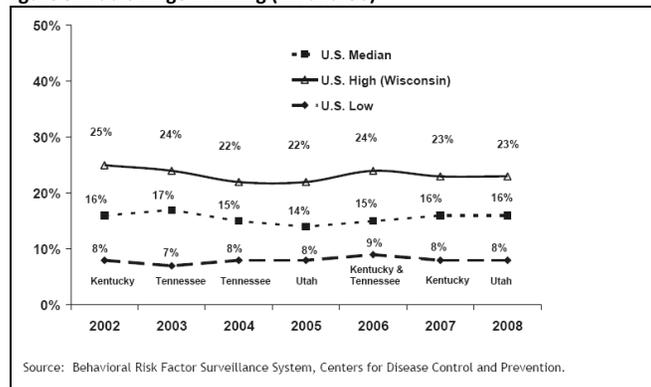
**Figure 3: Alcohol Use Among Adults (WI and US)**



**Figure 4: Current Alcohol Use Among Adults (WI and US)**



**Figure 5: Adult Binge Drinking (WI and US)**



More locally, Marathon County exceeds the state average for adults reporting current alcohol use (one drink of alcohol in the past 30 days) on the Behavioral Risk Factor Survey. Where WI classifies 68% of the adult population as current drinkers, Marathon County reports 69% (Epidemiological Profile 2010).

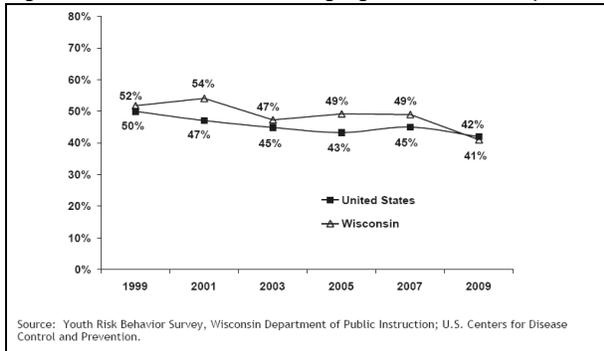
Excessive alcohol consumption, including binge drinking (5 or more drinks on one occasion) and heavy average daily alcohol consumption (more than two drinks per day for men and more than one drink per day for women) is responsible for approximately 79,000 deaths per year in the U.S., making it the third-leading cause of preventable death in the nation (Campbell 2009). While binge drinking rates among WI adults (23%) exceed the national average, Marathon

County's rates of adult binge drinking are even higher, reaching 24% (Epidemiological Profile 2010).

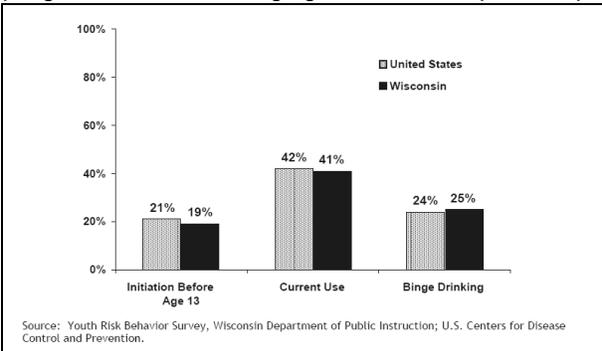
Heavy use of alcohol among WI adults has remained consistently higher than the national average, with the highest rates among individuals aged 18-24. In 2008, 15% of this age group reported heavy drinking (Epidemiological Profile 2010).

The alcohol use rates of youth in WI are comparable to national averages. Current alcohol use among WI high school students was reported by 41% of that population in 2009 (Epidemiological Profile 2010). As with the adult population, current drinking rates of youth are also declining in WI.

**Figure 6: Current Alcohol Use Among High School Students (WI and US)**

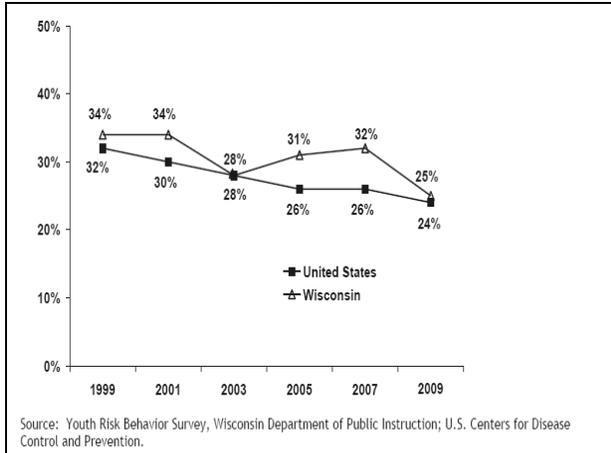


**Figure 7: Alcohol Use Among High School Students (WI and US)**

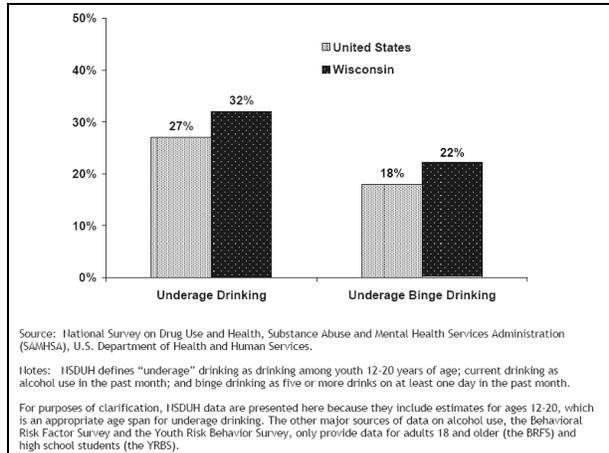


Binge drinking among high school students remains problematic. With 25% of the youth reporting current binge drinking behaviors, WI youth exceed the national average. While high school students make up part of the underage drinking population, they are not its entirety. NSDUH (The National Survey on Drug Use and Health) defines underage as those aged 12-20 years. The figures below reflect WI's underage population binge drinking at rates higher than the nation (Epidemiological Profile 2010). Unfortunately Marathon County data is not available for youth alcohol use.

**Figure 8: Binge Drinking Among High School Students (WI and US)**

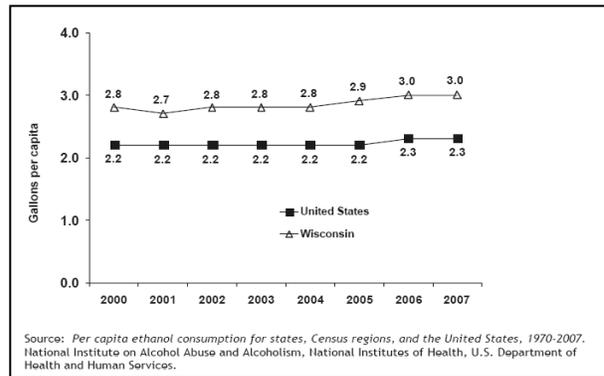


**Figure 9: Underage Drinking (WI and US)**



While we do not measure rates of underage drinking in the Village of Weston, arrests are captured by the Everest Metro Police Department. In 2009, the Department reported 62 violations and 53 in 2010. Qualitative information reflects that 75% of the surveyed high school students felt that underage drinking was a problem in their community.

**Figure 10: Per Capita Alcohol Consumption (WI and US)**

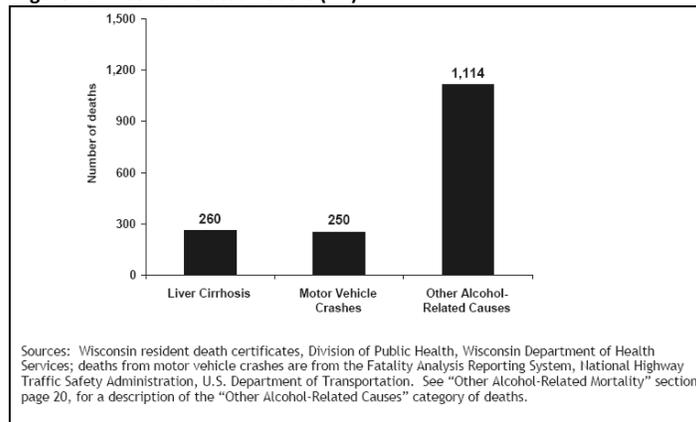


Overall consumption rates of alcohol in WI are unsurprisingly high. The per capita consumption of alcohol exceeds the national average at 3.0 gallons. This is equivalent to 768 drinks with 0.5 ounces of ethanol each (Epidemiological Profile 2010). Youth consumption rates are staggering. In 2007, underage drinkers consumed 15% of all alcohol sold in Wisconsin, totaling \$555 million in sales (PIRE 2009).

**Literature Review & Existing Conditions – Consequences of Alcohol Misuse**

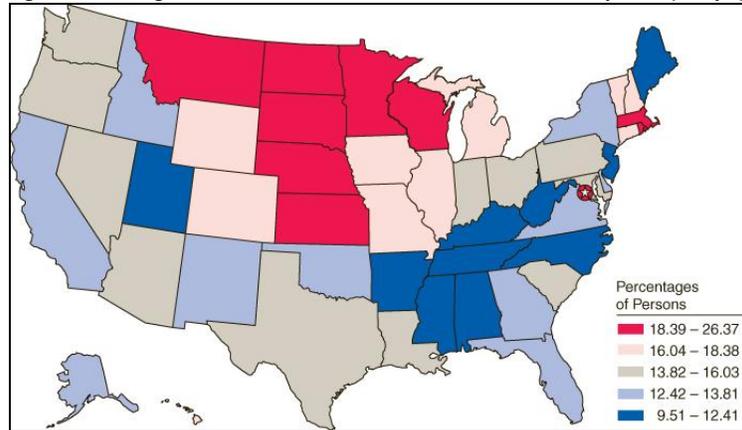
The consequences of alcohol consumption are great and vary from injury to chronic disease. In 2008, 1,624 Wisconsin residents died and 4,319 were injured as a direct result of alcohol use (Epidemiological Profile 2010). A disease directly related to alcohol misuse is liver cirrhosis. The alcohol related liver cirrhosis death rate in WI is 4.2; Marathon County slightly exceeds this rate at 4.4 (Epidemiological Profile 2010).

**Figure 11: Alcohol-Related Deaths (WI)**



Beyond many chronic diseases that arise from alcohol misuse, impaired driving continues to pose a severe threat to Wisconsin communities. As seen in the figure below, our state leads the nation in individuals drinking and driving; with more than 26% of WI adults reporting that they had driven under the influence of alcohol in the previous year (NSDUH 2008).

Figure 12: Driving Under the Influence of Alcohol in the Past Year, by State (18+ yrs)



Alcohol impaired driving has serious consequences. In 2009, of the total 29,907 crashes in WI, alcohol accounted for 45% of these, killing 238 people and injuring an additional 4,000 (WI-DOT 2010). Locally, Marathon County experiences its share of drinking and driving crashes as well. In 2009, alcohol was involved in 150 traffic crashes with 92 injuries and 7 fatalities, representing 37% of the total crash fatalities (WI-DOT 2010). Within the Village of Weston, the Everest Metro Police Department reported 94 Operating While Intoxicated (OWI) citations in 2009 and 51 in 2010. According to the Chief of Police, Wally Sparks, this decline can be contributed, in part, to a reduction in patrol officers during 2010.

Youth in our communities also engage in drinking and driving. According to the Youth Risk Behavior Survey, 24.3% of WI youth report riding with a driver who had been drinking alcohol in 2009 and 8.9% have driven a vehicle after drinking alcohol (CDC 2009). In 2009, Marathon County reported 12 arrests for juvenile drinking and driving (WI-DOT 2010). A survey conducted with local high school youth show that 46% of the 118 respondents feel that teen drinking and driving is a problem in their community; however 72% felt that adult drinking and driving was a problem.

The effects of underage drinking are tremendous. While local data isn't available, 1,417 youth 12-20 years old were admitted for alcohol treatment in Wisconsin, accounting for 7% of all treatment admissions for alcohol abuse in the state (PIRE 2009). This is particularly concerning given that youth who begin drinking before age 15 are four times more likely to develop alcohol dependence and are two and a half times more likely to become abusers of alcohol than those who begin drinking at age 21 (PIRE 2009), making them a vulnerable population.

While the consumption rates of youth are quite concerning, so are the effects of underage drinking on the community. "Underage drinking is a causal factor in host of serious problems, including homicide, suicide, traumatic injury, drowning, burns, violent and property crime, high risk sex, fetal alcohol syndrome, alcohol poisoning, and the need for treatment for alcohol abuse and dependence (PIRE 2009)." Underage drinking also greatly impacts the economy. According to the graph below, it cost the residents of Wisconsin nearly \$1.3 billion in 2007, translating to a cost of \$2,320 per year for each youth in the State (PIRE 2009)."

Figure 13: Costs of Underage Drinking by Problem (WI)

Problem	Total Costs (in millions)
Youth Violence	\$703.7
Youth Traffic Crashes	\$311.3
High-Risk Sex, Ages 14-20	\$88.5
Youth Property Crime	\$49.6
Youth Injury	\$56.5
Poisonings and Psychoses	\$9.9
FAS Among Mothers Age 15-20	\$19.2
Youth Alcohol Treatment	\$53.9
<b>Total</b>	<b>\$1,292.6</b>

### Literature Review – Alcohol Outlets

Alcohol outlets, or the availability of alcohol, can be quantified by the number of outlets selling alcohol within the Village. Evidence to support the decision to focus on the number of outlets can be found in several sources, including the “What Works for Health, Policies and Programs to Improve Wisconsin’s Health” published by the University of Wisconsin Population Health Institute. According to this document, reducing the number of alcohol outlets within a community can have expected beneficial outcomes on binge drinking, underage drinking and operating a vehicle while intoxicated. As seen in the figure below, regulating alcohol outlets is not only scientifically supported, but is shown to have a large population reach.

Figure 14: Evidence-based Strategies for Substance Misuse or Dependency

SUBSTANCE MISUSE OR DEPENDENCY <i>cont.</i>			Potential Decision Makers				
Program or Policy	Evidence Rating	Potential Population Reach	Government	Education	Health Care	Business	Community Organizations
<b>RAISE THE PRICE OF ALCOHOL</b>							
Increase alcohol excise tax	4						
Restrict drink specials that encourage over-consumption (e.g., all-you-can-drink)	2						
<b>RESTRICT THE PLACES AND TIMES IN WHICH ALCOHOL CAN BE CONSUMED OR PURCHASED</b>							
Reduce alcohol outlet density	3						

A popular model (the population consumption model) indicates that alcohol consumption is in part, a function of the distribution of consumption of the community and leads to the conclusion that the magnitude of alcohol related health problems is related to per-capita consumption (Cohen 2002). It also supports that individual consumption is associated with factors such as physical and social availability of the alcohol product in the community. Therefore, a greater number of alcohol outlets would create a greater amount of alcohol available to the community’s residents.

Efforts to reduce various problems related to alcohol outlets generally assume a model linking alcohol outlets to problem outcomes, with drinking as a mediating factor (Gruenewald 2002). According to Gruenewald, the model predicts that increased availability in the form of greater outlet density will increase drinking, which in turn will increase subsequent problems. This was also found to be true in other studies within the general population and on college campuses across the country. Wagenaar reported “findings of the relationships between outlet density and alcohol use and alcohol problems provide growing evidence that outlet density may cause increased alcohol use and problems” (Wagenaar 2005). The same generalization was found on college campuses as well. According to a study of multiple U.S. colleges, the rate of drinking and binge drinking are significantly higher among students when a greater number of alcohol outlets exist near campus (Chaloupka 1996). Chaloupka also makes note that “this is particularly true for underage drinking”, one of our vulnerable populations (1996). This finding was also reflected in the California Health Interview Study of youth. The study found that binge drinking and driving after drinking among youth were positively associated with the number of alcohol outlets within a half mile radius of their home (Truong 2009).

Henry Wechsler from Harvard University states that “higher concentrations of establishments selling and serving alcohol create a far more competitive climate that is more likely to result in drink specials and off-price promotions that promote dangerous drinking habits” (2002). When low cost alcohol is available in communities, persons who are affected with greater proportion are those who are predisposed to drink heavily, for example young adults (Weitzman 2003). Truong found that higher outlet densities were also found in areas with more minority and lower income families (2009), another of our vulnerable populations. It is understood that private retailers can tailor their pricing to the customer base. This assumes that if the store is in a low-income area, they may offer cut-rates on certain types of alcohol popular with their clientele, providing greater access to alcohol in these communities (Norton 2011).

When alcohol is abundant in communities, residents can suffer the consequences. British Columbia recently privatized their alcohol outlets (moving from government-run to private owners) and is now seeing a quick increase in the number of alcohol outlets within communities. This increase has also been accompanied by a rise in alcohol-related deaths (Norton 2011). Tim Stockwell a researcher from the University of Victoria, British Columbia adds that for every store per 1,000 people in a community, the alcohol related death rate rose by 27.5 percent and concluded that “there is a strong, robust relationship” between the increase in outlets and alcohol related deaths (2010).

According to a study performed in Los Angeles, there is a greater number of alcohol-related injury crashes in cities with higher outlet densities. A 1% increase in outlet density means a 0.54% increase in injury accident density. Thus, a city of 50,000 residents with 100 alcohol outlets, one additional outlet accounted for a 0.54% increase in the number of alcohol related injury crashes or approximately 2.7 additional injury crashes...a rate of 1 crash per 100 residents (Scribner 1994). Ongoing research has also demonstrated a number of relationships between alcohol availability defined by outlet density and alcohol related outcomes including cirrhosis deaths, alcoholism and drunk driving arrests (Scribner 1993). Reducing the number of outlets selling alcohol can have a positive impact on alcohol use and various consequences, one being

drinking and driving. According to a meta-analysis of outlet density research, Gruenewald found that the “follow-up evaluation of these efforts has generally supported their effectiveness in terms of reducing problems, such as alcohol-related car crashes, when implemented as part of an effort to change the overall alcohol environment (2002).” While this Health Impact Assessment focuses on one factor of the “overall alcohol environment” other efforts, including activities of the Drug Free Communities grant (DFC) and Strategic Prevention Framework-State Incentive Grant (SPF SIG) contribute to comprehensive prevention efforts in Marathon County.

Further policy recommendations to limit the number of alcohol licenses available, in order to prevent alcohol misuse and its consequences within the Village of Weston, are also supported by recommendations in the literature as seen in the following chart.

**Chart 1: Policy Recommendations from Literature**

<b>Source</b>	<b>Policy Recommendations from Literature</b>
Wechsler, H: Harvard School of Pubic Health	Moratorium on licenses to reduce the density of alcohol outlets around college campuses
Cohen, D: Louisiana State University	Restriction on alcohol accessibility and alcohol licensure requirements
Sherman, J: WI Alcohol Policy Project	Alcohol density limits prevent over-concentration and effectively reduce outlet density over time

**Existing Conditions – Alcohol Outlets**

Within the Village of Weston (an area of 21.66 square miles), there are 42 alcohol outlets. These are both outlets that sell alcohol for off-premise use (Class A license) and for on-premise use (Class B license).

Examples of Class A license

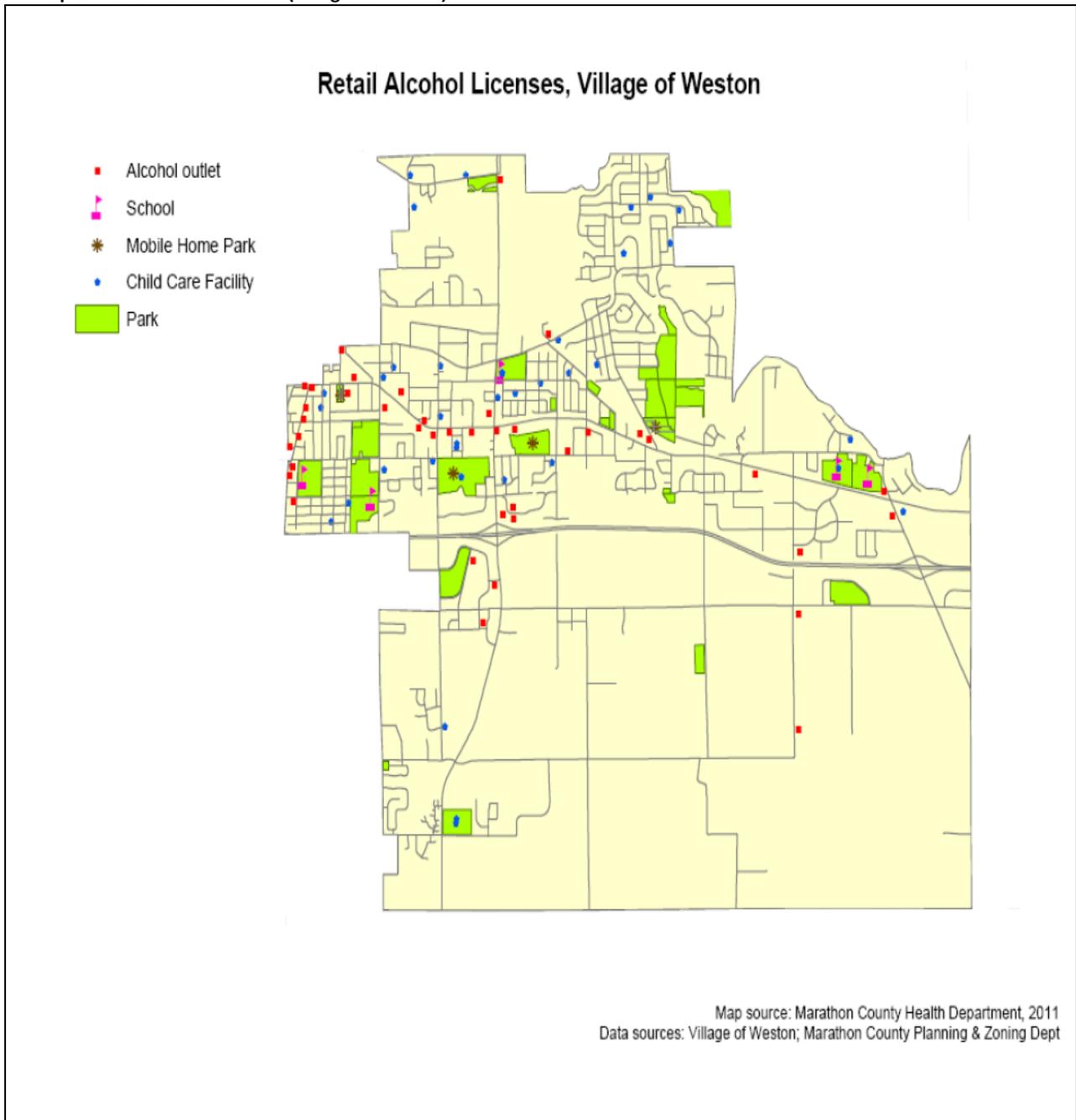
- Liquor stores
- Convenience stores
- Gas stations
- Grocery stores
- Pharmacies

Examples of Class B license

- Restaurants
- Bars
- Casinos
- Bowling alleys

In Wisconsin, outlets may also hold a combined license in which a bar could sell alcohol for their patrons to take off-premise and consume at home. Based on the GIS mapping performed in Weston, we see a high concentration of outlets, whether Class A or Class B on Schofield Avenue and Business 51, twenty-six to be exact. These outlets are represented in the map below. The photos below the map represent a few of these outlets, some of which are neighboring one another.

Map 1: Retail Alcohol Licenses (Village of Weston)





\*Class A license



\*Class B license



\*Class A/B license



\*Class A license



\*Class B license



\*Class B license



\*Class A/B license across street from Class A license



\*2 Class A's and a Class B (one block from junior high)

When considering alcohol outlets per resident, Wisconsin has one alcohol outlet for every 172 residents. The national average is one outlet for every 1,400 residents (Sherman 2010). While no recommendations have been made as to how many alcohol outlets a community should have, California’s Department of Alcoholic Beverage Control Act set guidelines for the maximum levels of outlets, one license for every 2,500 city or county residents.

Weston’s current population is 14,868, totaling 1 alcohol outlet per 354 residents. If the proportion of the population that is over 18 years of age is considered, there is 1 outlet per 257 residents. Marathon County holds 422 alcohol licenses in total, 1 outlet per 241 residents 18 years or older. Unfortunately information on residents aged 21 and younger was not available in the 2010 census database, only 18 and younger.

**Chart 2: Alcohol Outlets per Resident (Village of Weston and Marathon County)**

	<b>Population</b>	<b>Alcohol licenses</b>	<b>Alcohol licenses per resident</b>	<b>Alcohol licenses per resident over 18 years</b>
Weston	14,868	42	354	257
Marathon County	134,063	422	317	241

The location of an alcohol outlet in comparison to high areas of vulnerable populations is very important and must be considered when evaluating the impact of alcohol outlet density on a community. As you can see in the photos and zoning map below, a number of Weston’s alcohol outlets are in areas with higher concentrations of individuals living in or near the poverty level. As mentioned in the literature review earlier, this could potentially impact alcohol pricing in those neighborhoods, creating a disproportionate burden on these populations by making alcohol more accessible.

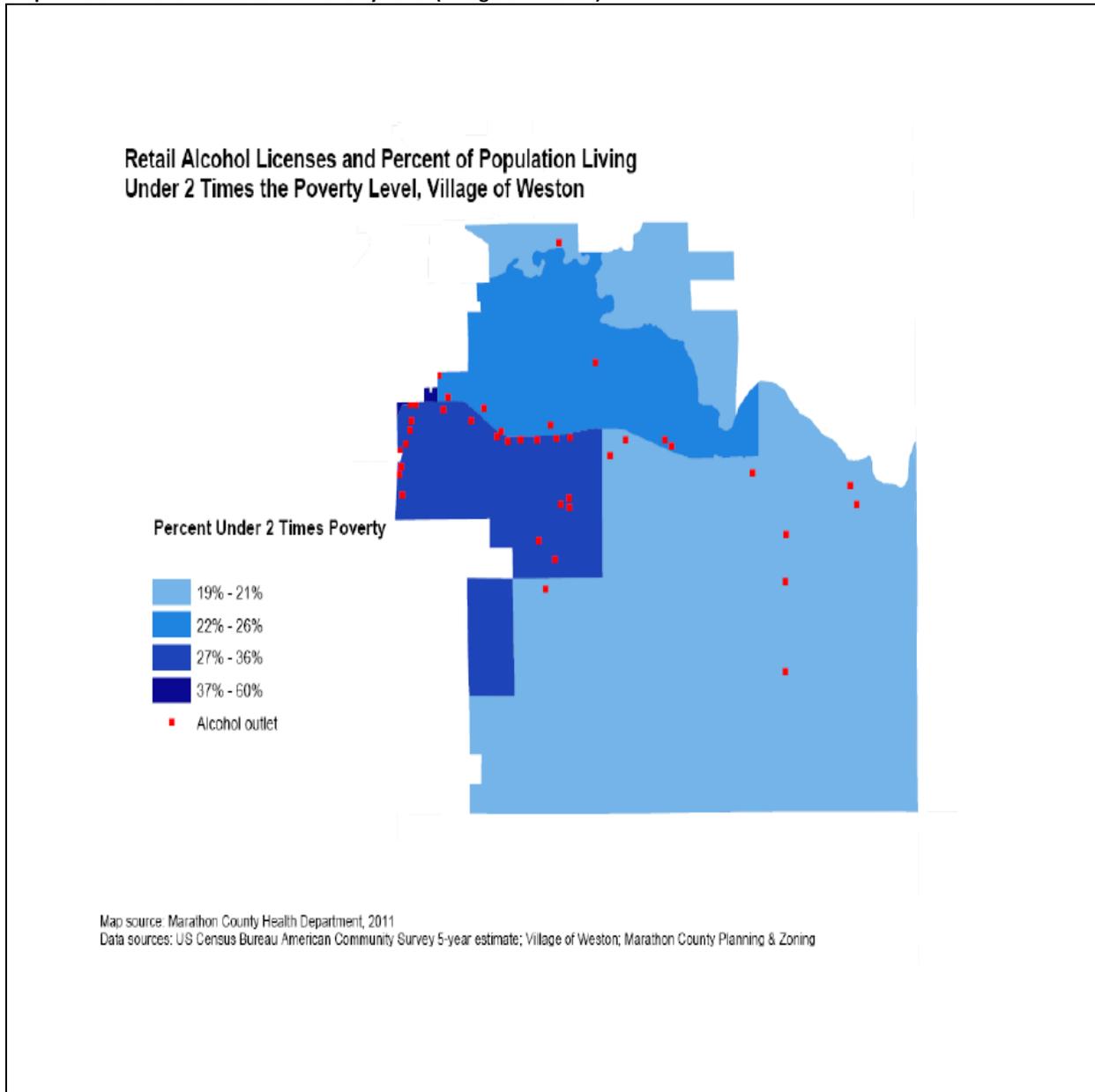


\*Class A license and apartments



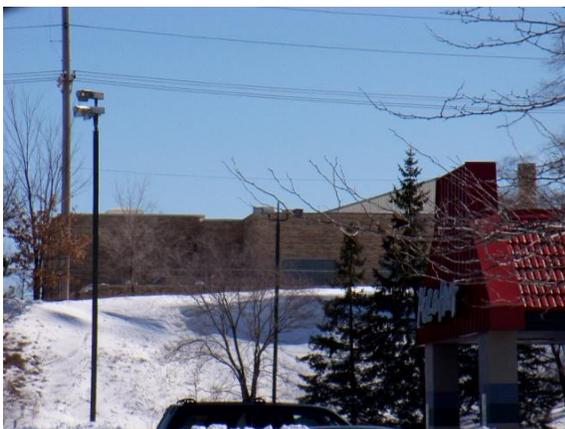
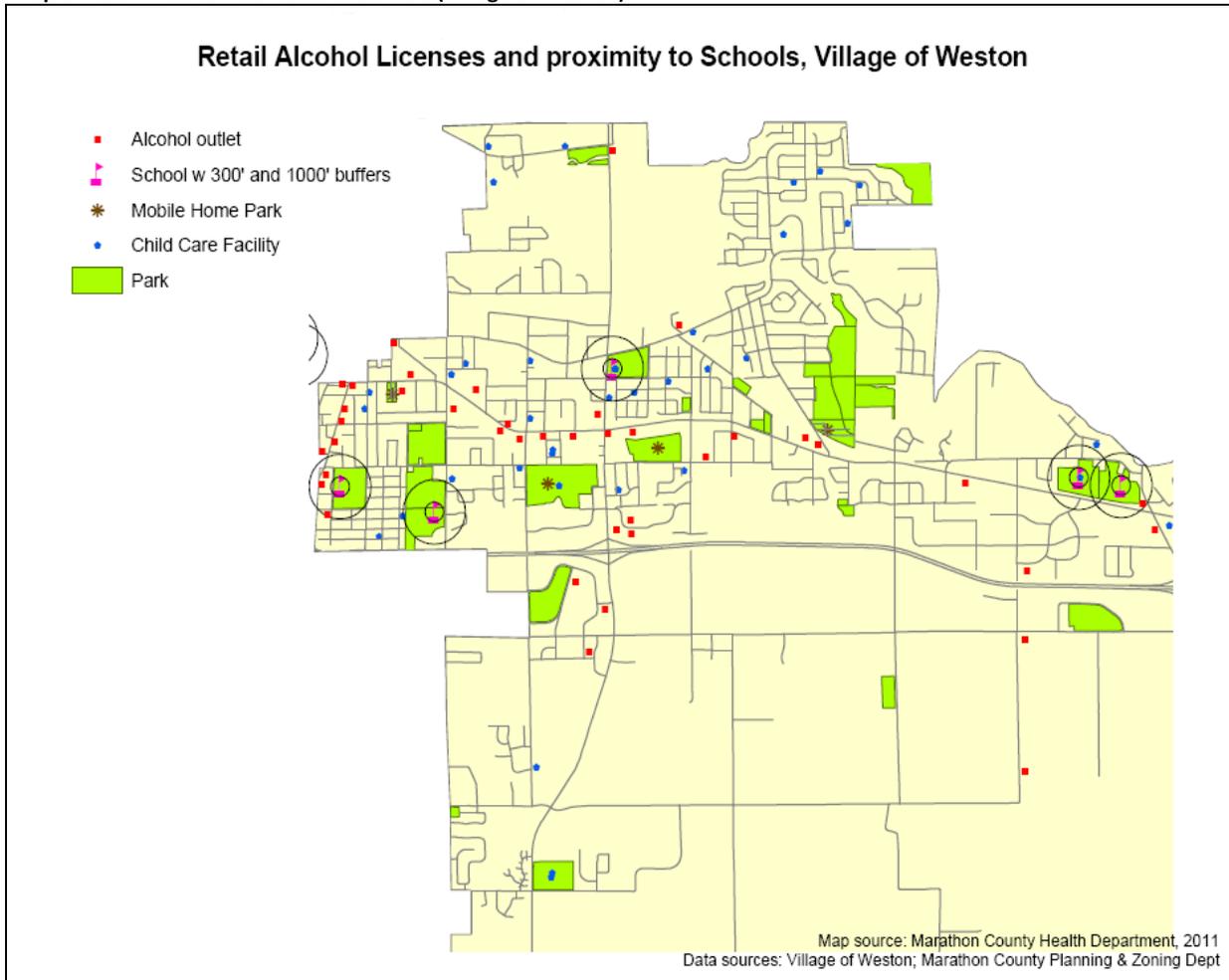
\*Class B license and mobile home community

Map 2: Retail Alcohol Licenses and Poverty Level (Village of Weston)



Not only do alcohol outlets exist near low-income areas but also near schools, making alcohol available within walking distance of large populations of youth. As seen in the GIS map below, all alcohol outlets in Weston are located outside of the statutory guideline of 300 ft. from a school (D.C. Everest School District). The small circles on the map represent the 300 ft. statutory guideline and the larger circles represent a suggested distance of 1000 ft. from a school. Two of the schools within the D.C. Everest district have alcohol outlets within 1000 ft., one of which, a junior high, has 3 outlets.

Map 3: Retail Alcohol Licenses and Schools (Village of Weston)



\*Class B license and junior high school



\*Class B license middle school (in background)

While an important aspect of this HIA was to map the locations of the alcohol outlets, the goal was to assess the potential impacts of *policies* which limit alcohol license density on community health. After a careful evaluation of the literature and existing conditions within the Village of

Weston, best practice policies found to reduce alcohol misuse were reviewed and discussed with community members.

### **Policy Review and Proposal**

The over-concentration of alcohol outlets has been associated with neighborhood economic and social disintegration. Studies have shown that the economy of a community can risk becoming less attractive to not only residents, but potential retail developers as well. Increasing numbers of alcohol outlets is both a result of economic decline as well as a driving force of the decline. (Maxwell 1997).

When over-concentration occurs, in either spatial or population density, communities find it difficult to reduce the number of alcohol licenses. Deciding to not renew a license and/or revoking an establishment's license can be costly and time-consuming. "As a result, concentrations of alcohol outlets are not easily reversed making it imperative for municipalities to understand outlet density and consider appropriate local limitations *before* problems emerge" (Sherman 2010). Sherman also notes that communities must understand that limits on density work over time and if the community happened to freeze in the number, size and location of outlets, reductions in alcohol related problems would be gradual (2010). Based on this assumption, Weston could experience a slight decrease in the proportion of outlets per resident if a moratorium of new licenses was put into place. Based on the State Demographer's calculations, the Village is growing and should reach 15,935 people in 2030, marking a slow increase (32% over 30 years). If a moratorium was placed on future licenses, over time the alcohol outlet per resident ratio would decrease.

Limiting the density of alcohol outlets is one proven intervention strategy recommended by the NIAAA (National Institute on Alcohol Abuse and Alcoholism) to address problem drinking behaviors. While no recommendation specified between spatial density versus a population density plan, communities can and should regulate the availability of alcohol as part of a comprehensive public health and safety policy (Fact Sheet 2007). In WI, municipalities have the authority to issue alcohol licenses and also control the type of establishment selling and serving alcohol. They may also control whether sales are concentrated in one area or spread throughout the community (Sherman 2010).

While there is already a WI State Statute that places a quota on the number of Class B licenses that can be issued in a municipality (based on population), there is currently no limit given on the number of Class A's that can be issued. Through qualitative information gathering in the community, it was found that a policy to limit future Class A alcohol licenses is generally supported. Suggestions to limit Class A licenses solely were given by interviewees as a way to alleviate any negative economic impacts. Residents interviewed clearly agreed with the harm alcohol creates within the Village. They named alcoholism, drinking and driving and underage drinking as serious consequences of alcohol use and felt that more could be done to protect the health of the community.

When asked specifically about the positive impact of alcohol, the majority of respondents mentioned that it was a social connector and a source of revenue for the Village. They also acknowledged, however, that the positive impacts of alcohol do NOT outweigh the negative impacts. Generally, those interviewed felt that drinking and driving was a serious concern in Weston, however they felt that underage drinking was likely comparable to other communities across the state. When asked about a policy to limit the number of alcohol licenses in the Village, there were no negative comments and most respondents felt that there were plenty of outlets present in which alcohol could be purchased. There was also a satisfaction among current alcohol license holders; both Class A and Class B licenses, that this type of policy would create less competition. License holders even mentioned that if less competition were present, they would not feel the pressure to reduce prices, creating more high risk drinking opportunities. The only pushback, while minimal, was in regard to simply passing a new policy. In the interviewee's words, there are enough policies currently in place that restrict the behaviors of Weston residents. Through discussion, this pushback was resolved and the interviewee felt that this type of policy could in fact, further protect residents.

An informal analysis of the qualitative feedback shows that this community is ready for, and supportive of a policy that places a limit of future Class A alcohol licenses to further protect the health of residents. Overall, their personal views of the Village were quite positive and reflected a progressive, healthy, family oriented community that cares about one another. While economic development was an area of concern, the suggestions from community members to place a limit on Class A licenses instead of both Class A and Class B licenses were a way to mitigate this potential issue. Additional themes from the qualitative information gathering process can be found in Appendix 2: *Community Interviews (Village of Weston)*. This information was gathered through an interview process with adults and a survey was provided to high school youth. Examples of both tools and methodology can be found in Appendix 3: *Qualitative Information Gathering Methodology and Tools* of the report.

### **Review of Findings and Projected Outcomes**

While literature recommending a limit on a specific type of license (A or B) is not available, it is hypothesized that placing a limit on future Class A alcohol licenses will reduce the amount of alcohol available per resident in the Village of Weston, given that the population is growing. Based on existing literature, it is reasonable to assume that this reduction in the amount of alcohol available to residents would also positively impact drinking and driving rates, as well as, youth drinking rates. The following chart (Chart 3: *Summary of findings*) was created to provide a summary of the assessment phase. An explanation of the symbols can be found in Appendix 4: *Summary of Findings - KEY*. Further projections on the anticipated outcomes can be seen in Chart 4: *Projected Outcomes*.

Chart 3: Summary of Findings

HIA Impact Analysis – Summary of Findings				
Health Outcome/ Determinant	Direction and Extent	Likelihood	Distribution	Quality of Evidence
Alcohol Consumption	▲▲	Possible	Low income impacted more	***
Underage Drinking	▲▲	Possible	Youth impacted more	***
Drinking and Driving	▲▲	Possible	Uncertain	**

Chart 4: Projected Outcomes

Indicator (outlined in Scoping Phase)	Baseline Measure (2010)	Projected Outcome after policy implementation to restrict Class A licenses	Impact
Number of alcohol licenses in Weston	42	42	~
Population growth in Weston	14,868	15,935 (2030)	+
Spatial density of alcohol licenses	Spatial Density - map	Spatial Density - map	~
Population density of alcohol licenses	1 outlet per 354 residents	1 outlet per 379 residents <small>*CA recommendation is 1 per 2500 residents</small>	+
Rates of drinking and driving (OWI) arrests	51 arrests	Decrease in OWI arrests	+
Rates of underage drinking	53 arrests	Decrease in underage drinking arrests	+
Enforcement Practice for drinking and driving	Standard enforcement practice	Change in enforcement practices is not expected	~
Enforcement Practice for underage drinking	Standard enforcement practice	Change in enforcement practices is not expected	~
Morbidity/mortality of alcohol related crashes	1 fatality	Change in practices not expected due to small baseline	~
Available alcohol to vulnerable populations	Outlets near vulnerable populations (youth and low income)	Location of outlets near vulnerable populations not expected to change.	~
	Competitive pricing not measured at baseline	Pricing of alcohol to become less competitive over time attracting fewer individuals in vulnerable populations	+

Based on these projections, best practices and community feedback, the recommendations in the chart below will be made to the Village of Weston Board. The first recommendation is to

place a moratorium on future Class A alcohol licenses within the municipality as a whole. Because the community felt that certain exemptions would help mitigate negative economic impact, there is a recommendation to create a subgroup to develop such exemptions using examples from other communities. Forming an Alcohol License Review Committee is recommended to gather a more broad community and health perspective when each alcohol license application is reviewed. This was a suggestion that experienced success by another community in the state who is working on a similar issue.

Another recommendation supports the collection of health data for local youth in the form of the Youth Risk Behavior Survey administered by the Centers for Disease Control and Prevention in order to consistently measure and monitor outcomes of drinking behaviors among Village youth. This recommendation stems from the fact that health behavior data for Wisconsin youth are not reported consistently among communities. Within Marathon County, data are often collected; however there is inconsistent implementation among schools. The final recommendation encourages the support for Health Impact Assessments by the Marathon County Board in local municipalities within the county to ensure the health of residents is considered in decision-making.

**Chart 5: Recommendations**

	<b>Recommendation</b>	<b>Audience</b>
<b>Primary</b>	Place a moratorium on all future Class A alcohol licenses in the Village of Weston, WI	Village Board Members
	Develop a committee to create policy exemptions to mitigate negative economic impact	HIA Advisory Committee
	Develop an alcohol license review board consisting of the Village Clerk, law enforcement, residents, Village Board and health care professionals	HIA Advisory Committee
<b>Secondary</b>	Gather consistent health related data among youth in the D.C. Everest School District, such as the Youth Risk Behavior Survey (CDC)	HIA Advisory Committee
	Gain Marathon County Board of Health support for conducting Health Impact Assessments in other Marathon County communities	HIA Advisory Committee and Village Board Members

***Step 4. Reporting:  
Synthesis of results***

The recommendations derived from this HIA will be communicated and distributed to key stakeholders and community members in a strategic method to fit their needs and requests. The overall goal of reporting is to provide findings (through multiple reporting methods) of the HIA that support the following recommendations concerning alcohol policy within the Village of Weston, WI.

**Recommendations**

Each of the recommendations below will be shared with all audiences involved with the HIA in Weston.

- Moratorium on all future Class A alcohol licenses in the Village of Weston, WI
- Develop a committee to create policy exemptions to mitigate negative economic impact
- Develop an alcohol license review board consisting of (at minimum) the Village Clerk, law enforcement, residents, Village Board and health care professionals
- Gather consistent health related data among youth in the D.C. Everest School District, such as the Youth Risk Behavior Survey
- Gain Marathon County Board of Health support for conducting Health Impact Assessments in other Marathon County communities

**Chart 6: Report Rationale**

Audience	Report Format	Rationale	Estimated Timeline
HIA Advisory Committee	HIA Full Report	The final HIA report will serve as the main report distributed to our Advisory Committee in Weston. The group’s involvement throughout the HIA steps affords them the ability to comprehend and process the findings in a way that may not be suitable for most audiences.	May, 2011
Village of Weston Board Members	Summary Document with Power Point Presentation	A summary document will be prepared for the Village Board and residents, capturing highlights of each of the HIA steps. This may be in the format of a fact sheet, leading to final recommendations at the conclusion of the document. This document will be accompanied by a PowerPoint presentation to further explain the process and provide maps and photos created through the assessment phase.	June, 2011

Chart 6: Report Rationale (cont.)

Audience	Report Format	Rationale	Estimated Timeline
Village of Weston Residents	Summary Document, Power Point Presentation and Press Release	A summary document will be prepared for residents of the Village, capturing highlights of the HIA process. This may be in the form of a fact sheet, leading to final recommendations at the conclusion of the document. This document will be accompanied by a PowerPoint presentation to further explain the process and provide maps and photos created through the assessment phase. These will be presented if a community forum should be ordered to discuss a new policy placed before the Village Board. A Press Release of bulleted HIA findings and recommendations will also be sent through a media contact list (newsprint, television and radio) to reach a broader audience within Marathon County.	June, 2011
Alcohol Prevention Professionals in WI	Summary Document	A summary document will be prepared for alcohol prevention professionals capturing highlights of the HIA process, while educating them in the HIA steps. This may be in the form of a fact sheet, leading to final recommendations at the conclusion of the document. This document will be emailed to alcohol prevention professionals through the list-servs such as "Stop Underage Drinking" and "WI Prevention Network".	June, 2011
Marathon County Board of Health	Summary Document with Power Point Presentation	A summary document will be prepared for the Marathon County Board of Health specifically highlighting the health impacts of alcohol on the Village of Weston and evidence supporting the recommendations. A PowerPoint presentation will accompany the report to further educate the Board on the HIA process and provide maps and photos creating during the assessment phase. The full HIA report will also be available to Board Members upon request. The Board of Health is a key audience to support these recommendations moving forward in other communities within the county.	July, 2011

**Step 5. Monitoring:**

***Includes evaluation, describes how the process and findings of the HIA affect the decision and ultimate health policy outcomes***

**Impact Measures**

The impacts of our health indicators, drinking and driving and underage drinking will be monitored as seen below.

- Law enforcement citations for underage drinking and drinking and driving violations will continue to be collected and compared with baseline measures captured in April, 2011.
- Follow up key-stakeholder interviews will be performed on a biennial basis after policy implementation and compared with baseline qualitative measures captured in April, 2011.
- Follow up youth surveys will be performed on a biennial basis after policy implementation and compared with baseline measures captured in April, 2011
- The impact of the policy on the health indicators as they relate to vulnerable populations (youth and low income individuals) will be measured by re-mapping Map 2 and Map 3 to determine if the number of alcohol licensees has changed. Re-mapping will take place in 5 years, 2016.

The chart below lists the recommendations and the methods in which each will be monitored.

**Chart 7: Impact Monitoring**

	<b>Recommendation</b>	<b>Monitoring</b>
<b>Primary</b>	Place a moratorium on all future Class A alcohol licenses in the Village of Weston, WI	Part I) Policy proposed and passed in the Village of Weston. Part II) GIS mapping of alcohol outlets to be complete 5 years after policy implementation.
	Develop a committee to create policy exemptions to mitigate negative economic impact	Committee creation, and policy exemptions as appendix of the proposed policy
	Develop an alcohol license review board consisting of the Village Clerk, law enforcement, residents, Village Board and health care professionals	Part I) Committee creation as part of the Village of Weston Part II) Monitor changes (written record) in decision making process of alcohol license approval

**Chart 7: Impact Monitoring (cont.)**

<b>Secondary</b>	Gather consistent health related data among youth in the D.C. Everest School District, such as the Youth Risk Behavior Survey (CDC)	Implementation of the CDC’s YRBS Survey on a biennial basis at minimum
	Gain Marathon County Board of Health support for conducting Health Impact Assessments in other Marathon County communities	Board of Health recommendation for other HIA assessments within the County

Based on the information gathered throughout the Assessment Phase of the HIA, it is likely that the Village Board will not only hear the recommendations, but also hold a public forum to discuss the issue of alcohol licensing. It is hypothesized, based on the information gathered, that a policy that places a moratorium on future Class A alcohol licenses will be passed by the Village of Weston Board within the next 12 months.

As stated earlier, the goal of this HIA was to assess the impact of a retail alcohol outlet density policy on community health, specifically drinking and driving and underage drinking within the Village of Weston.

**Process Measures**

Beyond measuring and monitoring health outcome indicators, the process of implementing the HIA in the Village of Weston produced several positive outcomes, especially in the creation of new relationships. These relationships will further the discussion of alcohol-related costs on the Village and will likely foster future discussions related to alcohol prevention.

Multiple stakeholders were engaged throughout the process including community members, Village Board members, Village Administration, law enforcement, alcohol license holders, high school staff, youth and the WI Tavern League. The relationship established with the WI Tavern League, in particular may prove to be the most critical in moving alcohol prevention efforts forward within the Village and/or county.

The relationships within the Advisory Committee were also strengthened as a result of the HIA, in that we envision ourselves working together beyond the scope of the grant to address the health and safety of residents. Discussions took place related to other policies that could be implemented based on best practice, which were not believed to have taken place prior to this grant.

Another benefit and tremendous strength of the HIA process was the collection of existing condition data within the Village. Now that this data has been collected and analyzed, the Village is better positioned to use the information in grant writing, policy development and for public awareness of the issues they are addressing. This rich data will serve as a measure of baseline data for future alcohol prevention efforts.

**Conclusion**

This health impact assessment proved to be successful in creating and strengthening relationships within the Village of Weston, as well as understanding the literature related to alcohol outlet density. While it is unknown whether the recommendations will be implemented, it is likely that further discussions about the prevention of alcohol misuse will take place. The health impacts of the HIA will become more apparent should a policy be passed, however it has been viewed as a successful process given the 6 month time frame. This HIA will serve as an example for other municipalities within Marathon County who wish to utilize a method of incorporating health into the decision-making process.

**Appendices**

**Appendix 1: Figures, Charts and Maps**

<b>Figures</b>	Figure 1	Pathway Diagram
	Figure 2	Scoping Worksheets
	Figure 3	Alcohol Use Among Adults (WI and US)
	Figure 4	Current Alcohol Use Among Adults (WI and US)
	Figure 5	Adult Binge Drinking (WI and US)
	Figure 6	Current Alcohol Use Among High School Students (WI and US)
	Figure 7	Alcohol Use Among High School Students (WI and US)
	Figure 8	Binge Drinking Among High School Students (WI and US)
	Figure 9	Underage Drinking (WI and US)
	Figure 10	Per Capita Alcohol Consumption (WI and US)
	Figure 11	Alcohol-Related Deaths (WI)
	Figure 12	Driving Under the Influence of Alcohol in the Past Year, by State (18+ yrs)
	Figure 13	Costs of Underage Drinking by Problem (WI)
	Figure 14	Evidence-Based Strategies for Substance Misuse or Dependency
<b>Charts</b>	Chart 1	Policy Recommendations from Literature
	Chart 2	Alcohol Outlets per Resident (Village of Weston and Marathon County)
	Chart 3	Summary of Findings
	Chart 4	Projected Outcomes
	Chart 5	Recommendations
	Chart 6	Report Rationale
	Chart 7	Impact Monitoring
<b>Maps</b>	Map 1	Retail Alcohol Licenses (Village of Weston)
	Map 2	Retail Alcohol Licenses and Poverty Level (Village of Weston)
	Map 3	Retail Alcohol Licenses and Schools (Village of Weston)

**Appendix 2: Community Interviews (Village of Weston)**

<b>Village Board Members (N=3)</b>	
<b>Question</b>	<b>Response Themes</b>
Impact of alcohol (harms)	<ul style="list-style-type: none"> <li>• Health Risks               <ul style="list-style-type: none"> <li>○ Alcoholism</li> <li>○ Chronic Diseases</li> </ul> </li> <li>• Injuries</li> <li>• Drinking and driving</li> <li>• Alcoholism</li> <li>• Parents providing to children</li> </ul>
Impact of alcohol (benefits)	<ul style="list-style-type: none"> <li>• Economic value</li> <li>• Social connectedness</li> </ul>
Underage drinking a problem	<ul style="list-style-type: none"> <li>• WI in general, not just Weston</li> <li>• Adult providers should be penalized</li> </ul>
Drinking and driving as a problem	<ul style="list-style-type: none"> <li>• Great concern</li> <li>• Multiple offenses</li> <li>• Not enough law enforcement to patrol</li> <li>• Destroys lives and families</li> </ul>
Limit of alcohol licenses	<ul style="list-style-type: none"> <li>• A limit on Class A's is preferred and supported</li> <li>• Plenty of places that sell alcohol</li> <li>• Additional regulation generally not supported, however this policy holds value</li> <li>• Negative economic impact if a business wanted to move to Weston and could not receive a license</li> </ul>
Policy considerations	<ul style="list-style-type: none"> <li>• Number of people employed</li> <li>• Distance from closest alcohol outlet</li> <li>• Distance from school or youth serving organization</li> </ul>
<b>Law Enforcement (N=2)</b>	
<b>Question</b>	<b>Response Themes</b>
Impact of alcohol (harms)	<ul style="list-style-type: none"> <li>• Drinking and driving</li> <li>• Alcoholism</li> <li>• Crime</li> <li>• Large proportion of job responding to alcohol problems</li> </ul>
Impact of alcohol (benefits)	<ul style="list-style-type: none"> <li>• Hard to see in light of problems</li> </ul>
Underage drinking a problem	<ul style="list-style-type: none"> <li>• WI in general, not just Weston</li> </ul>
Drinking and driving as a problem	<ul style="list-style-type: none"> <li>• Great concern</li> <li>• Sheriff's Department helps patrol in Weston</li> <li>• Time consuming</li> <li>• Know that there are far more arrests that should be made if staffing were greater</li> </ul>
Limit of alcohol licenses	<ul style="list-style-type: none"> <li>• If there were not a policy such as this put into place, law enforcement will continue to be burdened with alcohol related problems</li> </ul>
Policy considerations	<ul style="list-style-type: none"> <li>• Number of people employed</li> <li>• Distance from closest alcohol outlet</li> </ul>

## Appendix 2: Community Interviews (Village of Weston) (cont.)

<b>License Holders (N=3)</b>	
<b>Question</b>	<b>Response Themes</b>
Impact of alcohol (harms)	<ul style="list-style-type: none"> <li>• Alcohol companies attracting youth</li> <li>• Alcohol companies promoting binge drinking</li> <li>• Health impacts</li> </ul>
Impact of alcohol (benefits)	<ul style="list-style-type: none"> <li>• Economic value</li> <li>• Convenience to community</li> <li>• Social connectedness</li> </ul>
Underage drinking a problem	<ul style="list-style-type: none"> <li>• Great concern</li> </ul>
Drinking and driving as a problem	<ul style="list-style-type: none"> <li>• WI in general, not just Weston</li> <li>• Trying to education servers to intervene with patrons</li> </ul>
Limit of alcohol licenses	<ul style="list-style-type: none"> <li>• Limit on Class A's is supported</li> <li>• Reduce competition</li> <li>• Reduce need to compete with drink specials</li> <li>• Reduce need to promote alcohol (signage) on property</li> </ul>
Policy considerations	<ul style="list-style-type: none"> <li>• Distance between outlets</li> </ul>
<b>Community Members (N=10)</b>	
<b>Question</b>	<b>Response Themes</b>
Impact of alcohol (harms)	<ul style="list-style-type: none"> <li>• Health Impacts                             <ul style="list-style-type: none"> <li>○ Alcoholism</li> </ul> </li> <li>• Drinking and Driving</li> </ul>
Impact of alcohol (benefits)	<ul style="list-style-type: none"> <li>• Social connectedness</li> </ul>
Underage drinking a problem	<ul style="list-style-type: none"> <li>• WI in general, not just Weston</li> </ul>
Drinking and driving as a problem	<ul style="list-style-type: none"> <li>• WI in general, not just Weston</li> </ul>
Limit of alcohol licenses	<ul style="list-style-type: none"> <li>• Limit on Class A's is supported</li> <li>• Plenty of places that sell alcohol</li> <li>• Prefer to not have youth seeing and entering Class A's (gas stations and convenience stores)</li> </ul>
Policy considerations	<ul style="list-style-type: none"> <li>• Distance between outlets</li> <li>• Number of people employed</li> </ul>
<b>High School Students (N=118)</b>	
<b>Question</b>	<b>Response Themes</b>
Underage drinking a problem	75% agree
Drinking and driving a problem among teens	46% agree
Drinking and driving a problem among adults	72% agree
Adults drink responsibly	47% agree
Consequences for underage drinking are severe	53% agree
It is likely that I will get caught by my parents if I drink alcohol	67% agree
It is likely that I will get caught by police if I drink alcohol	35% agree
It is easy for teens to get alcohol	69% agree
There are enough places that sell alcohol	90% agree

### **Appendix 3: Qualitative Information Gathering Methodology and Tools**

**Community Interviews:** The Advisory Committee brainstormed stakeholders to be interviewed during the assessment phase. Stakeholders were contacted by phone or email and asked if they'd like to provide input in the Health Impact Assessment taking place in the Village of Weston. If the stakeholder agreed to the interview, a time and location was determined at their convenience and findings were hand-recorded and placed into a table format. Below is a sample of questions used during the interview process.

Weston License Holder Interview | Feb'11

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In your opinion, how does alcohol impact the Village of Weston?

Probe:

Benefits?

Harms?

1. Do you feel that drinking and driving is a problem in Weston?
  - a. How about underage drinking?
  
2. Think of yourself driving through Weston for the first time today (down Schofield Ave). How does it look to you?
  - a. How would you like to see the Village of Weston look 10 years from now?
  
3. How would an increase in the number of alcohol licenses affect that picture?
  
4. How would an increase in the number of alcohol licenses impact your business?
  
5. How would a policy that places a limit on alcohol licenses impact Weston?
  - a. How would a policy like this impact your business?
  
6. How do you feel about such a policy?
  
7. What should be considered when passing this type of policy?
  
8. Who else should I talk with about this issue?



## **Appendix 4: Summary of Findings – KEY**

*Direction and Extent of Impact* (combine direction, magnitude and severity into one measure):

- Severe impact on many = ▲▲▲▲ or ▼▼▼▼
- Severe impact for few or small impact on many = ▲▲▲ or ▼▼▼
- Moderate impact on medium number = ▲▲ or ▼▼
- Small impact on few = ▲ or ▼
- Uncertain = ?
- No effect = “No effect” or “None”

*Likelihood of Impact:*

- Likely = it is likely that impacts will occur as a result of the proposal
- Possible = it is possible that impacts will occur as a result of the proposal
- Unlikely = it is unlikely that impacts will occur as a result of the proposal
- Uncertain = it is unclear if impacts will occur as a result of the proposal

*Distribution of Impact:*

- Name subpopulation impacted more (e.g., “low-income residents impacted more”; “Blacks impacted more”) or “equal impacts”

*Strength/Quality of Evidence:*

- \*\*\* (e.g., many strong studies)
- \*\* (e.g., one or two good studies)
- \* (e.g., no clear studies, but generally consistent with principles of public health)

## **Appendix 5: Resources**

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### **Appendix 5: Resources (cont.)**

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