

Epidemiology of Alcohol Use State of Illinois

2008

*For Statewide Priorities:
Underage Alcohol Use
Binge Drinking
and
Alcohol-Involved Motor Vehicle Accident Fatalities*

*Prepared by
Statewide Epidemiological Outcomes Workgroup*

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This publication and additional analyses of patterns of substance use and contributing factors for Illinois as a whole and within particular geographic areas are available at <http://www.cprd.illinois.edu/ildataprofiles>.

Table of Contents

Executive Summary	i
Introduction.....	1
Background	1
Data Sources	1
Dividing the State into Groups of Similar Counties	1
Race/Ethnicity Categories.....	2
Intervening Variables and Contributing Factors	3
State Priorities.....	5
Underage Alcohol Use.....	5
Binge Drinking.....	9
Alcohol-Involved Motor Vehicle Accident Fatalities	12
Interaction of Priorities by Demographics	16
Intervening Variables	18
Easy retail access to alcohol for youth.....	18
Low enforcement of alcohol laws	19
Easy social access to alcohol.....	19
Low perceived risk of alcohol use	20
Social norms accepting and/or encouraging youth drinking	20
Promotion of alcohol use (advertising, movies, music, etc)	20
Low or discount pricing of alcohol	20
Prioritization of Contributing Factors.....	21
Middle School Priority Factors	21
High School Priority Factors.....	22
Appendix A. Composite Profile Strata.....	A-1
Appendix B. Intervening Variables & Contributing Factors for City of Chicago.....	B-1
Appendix C. Intervening Variables & Contributing Factors for Suburban Chicago..	C-1
Appendix D. Intervening Variables & Contributing Factors for Urban/Suburban Illinois	D-1
Appendix E. Intervening Variables & Contributing Factors for Rural Illinois.....	E-1
Appendix F. IYS Questions Related to Significant Risk & Protective Factors for Alcohol Use	F-1
Alcohol use	F-1
Social access to alcohol.....	F-1
Retail access to alcohol	F-2
Parental approval of alcohol use	F-2
Parental monitoring.....	F-3
Parents likely catch alcohol use (high school only)	F-3
Perception of peer use (high school only).....	F-4
Ease of access to alcohol (middle school only).....	F-4
Hours home alone in a typical week (middle school only)	F-4
Perceived risk (high school only).....	F-4
School attachment (high school only).....	F-5
Be seen as cool if drink (high school only).....	F-5

Appendix G. Data Values for Charts G-1

Figure 3: State of Illinois ATOD Prevalence, Grades 6-12 G-1
 Figure 4: Underage Alcohol Use by Grade and Data Source..... G-1
 Figure 5: Trends in Underage Alcohol Use G-2
 Figure 7: Binge Drinking by Age and Data Source G-2
 Figure 8: Trends in Binge Drinking G-3
 Figure 9: Binge Drinking by Race/Ethnicity and Data Source G-3
 Figure 12: 2007 Alcohol-Involved Motor Vehicle Fatalities by Age G-3
 Figure 13: Alcohol-Involved Motor Vehicle Crash Fatalities per 100,000
 Population by Community Type G-4
 Figure 14: Fatalities Over Time G-4
 Figure 15: Fatalities per 100,000 Population Over Time G-4

Appendix H. Data Sources H-1

Table of Figures

Figure 1: Alcohol Use by Geographic Area and Race/Ethnicity ii
 Figure 2: SAMHSA Intervening Variables.....3
 Figure 3: State of Illinois ATOD Prevalence, Grades 6-125
 Figure 4: Underage alcohol use by grade and data source6
 Figure 5: Trends in Underage Alcohol Use7
 Figure 6: Significant Differences in Underage Alcohol Use by Race/Ethnicity.....8
 Figure 7: Binge Drinking by Age and Data Source9
 Figure 8: Trends in Binge Drinking.....10
 Figure 9: Binge Drinking by Race/Ethnicity and Data Source11
 Figure 10: 2007 Alcohol-involved Motor Vehicle Accident Fatalities by Role in Accident...12
 Figure 11: Fatalities with positive alcohol tests by role in accident12
 Figure 12: 2007 Alcohol-involved motor vehicle fatalities by age.....13
 Figure 13: Alcohol-involved motor vehicle crash fatalities per 100,000 Population
 by community type14
 Figure 14: Fatalities over time15
 Figure 15: Fatalities per 100,000 population over time15
 Figure 16: Alcohol Use by Geographic Area and Race/Ethnicity16
 Figure 17: Alcohol Use by Grade and Race/Ethnicity, IYS16
 Figure 18: Alcohol Use by Grade and Gender, IYS17
 Figure 19: Retail licenses per 10,000 population, by MSA area, 2007.....18
 Figure 20: 2008 Social Access to Alcohol, IYS19
 Figure 21: IYS 2008 Social Norms Perceptions20
 Figure 22: Map of Composite Profile Strata..... A-1
 Figure 23: Retail licenses per 10,000 population, Chicago 2007B-1
 Figure 24: 2008 Social Access to Alcohol, City of Chicago, IYS.....B-1
 Figure 25: IYS 2008 Social Norms Perceptions, Chicago.....B-2
 Figure 26: Retail licenses per 10,000 population, Suburban Chicago, 2007C-1
 Figure 27: 2008 Social Access to Alcohol, Suburban Chicago, IYS.....C-1
 Figure 28: IYS 2008 Social Norms Perceptions, Suburban Chicago.....C-2
 Figure 29: Retail licenses per 10,000 population, Urban/Suburban, 2007D-1
 Figure 30: 2008 Social Access to Alcohol, Urban/Suburban, IYSD-1
 Figure 31: IYS 2008 Social Norms Perceptions, Urban/Suburban.....D-2
 Figure 32: Retail licenses per 10,000 population, Rural, 2007E-1
 Figure 33: 2008 Social Access to Alcohol, Rural, IYS.....E-1
 Figure 34: IYS 2008 Social Norms Perceptions, RuralE-2

Executive Summary

In November 2004, the Substance Abuse & Mental Health Services Administration (SAMHSA) granted funds to the Illinois Department of Human Services (IDHS), Division of Community Health and Prevention, to implement the Strategic Prevention Framework (SPF) within communities in Illinois. As part of this grant, in early 2006, the State Epidemiologic Outcomes Workgroup completed an Epidemiologic Profile that explored the use and misuse of tobacco, alcohol, and illicit drugs in the state of Illinois. That first endeavor was used to determine the burden of substance use and misuse across the state, and to set state priorities for the SPF. The priorities were selected on the basis of severity, proportion of the population affected, and ability to measure change in the indicator over time. The three chosen state priorities are: underage alcohol use, binge drinking, and alcohol-involved motor vehicle crash fatalities. This report describes the epidemiology of alcohol use for the three state priorities using 2008 data.

Underage Alcohol Use

Prevalence—alcohol is by far the most prevalent drug among youth.

Age—underage alcohol use increases with age.

Community Type—the prevalence of underage alcohol use does not vary by geographic area, except for 8th grade use. Patterns of use at 8th grade show youth in the City of Chicago somewhat more likely to have used alcohol in the past 30 days.

Trend—while underage alcohol use trends are relatively flat or decreasing for the state as a whole and for most ages, the slope of the statistical linear trend for 8th grade use (IYS 2000-2008) shows an increase, despite the fact that there is a decrease from 2006 to 2008. This statistical increase for 8th grade use is even more pronounced in some geographic areas.

Race/Ethnicity—all data show underage alcohol use is significantly lower for Black/African American high-school-age youth than for either White or Latino/Latina youth.

Gender—the data sources do not agree on differences between genders. Analysis of the interactions among several demographic variables suggests that girls are more likely to use alcohol at early ages, but after 12th grade boys are more likely.

Binge Drinking

Prevalence—since drinking varies widely by age, no single data source provides a statewide estimate of binge drinking for all age groups. (The range is from 15.2% (IYS) for grades 6-12, to 48.3% (CORE) for college students).

Age—binge drinking increases with age until ages 18-24, then decreases as adults get older.

Community Type—YRBS indicates that binge drinking for Chicago youth is lower than for the state as a whole (Illinois 28.0%; Chicago 20.0%). BRFSS and IYS indicate no statistical difference among geographic areas.

Trend—binge drinking in adults shows a small increase between 1998 and 2007. Binge drinking trends for youth show small decreases during the same time period.

Race/Ethnicity—people who identify as White, non-Latino/Latina have the highest percent of binge drinkers. People who identify as Black/African American, non-Latino/Latina have the lowest rate of binge drinking. These differences between Black/African American and White binge drinking are statistically significant.

Gender—the data sources do not agree on differences between genders. Analysis of the interactions among several demographic variables suggests that females are more likely to binge drink at early ages, but after 12th grade males are more likely.

Alcohol-Involved Motor Vehicle Accident Fatalities

Prevalence—FARS data for 2007 indicates the number of alcohol-involved motor vehicle accident fatalities in Illinois was 561, which is 4.4 fatalities per 100,000 population. The Healthy People 2010 target for deaths from alcohol-related motor vehicle crashes is 4 per 100,000 population. Illinois has a lower fatality rate from alcohol-involved motor vehicle accidents than the United States as a whole (5.1 per 100,000 population).

Age—of the alcohol-involved motor vehicle deaths in 2007, more people died who were ages 21-30 than any other group.

Community Type—rural areas consistently have the highest fatality rate (8.0 per 100,000 population), while Suburban Chicago has the lowest (2.7 per 100,000 population).

Trend—the trends of both absolute number of fatalities and the rate per 100,000 population have been decreasing over time.

Gender—more than three-fourths (78.4%) of the alcohol-involved fatalities in 2007 were male. Of those who died and tested positive for alcohol, 82.4% were male.

Interaction of Priorities by Demographics

The following analysis uses all 2008 IYS data, rather than the sample used for state data. The state sample was not drawn to represent sub-state analysis of this type. Please note the analysis may or may not be representative for the state as a whole, but does show clear patterns and consistency within the data itself. The patterns below retain their consistency when the analysis controls for schools with high and low levels of low income students, schools with high and low levels of diversity, and whether the school is public or private.

Figure 1: Alcohol Use by Geographic Area and Race/Ethnicity

Geographic Area	Race/Ethnicity with highest rate of underage alcohol use in the last 30 days	Race/Ethnicity with lowest rate of underage alcohol use in the last 30 days
Chicago	White	Black/African American
Suburban Chicago	White & Latino/Latina	Black/African American
Other Urban/Suburban	Latino/Latina	Black/African American
Rural	none (all equal)	none (all equal)

Introduction

Background

In November 2004, the Substance Abuse & Mental Health Services Administration (SAMHSA) granted funds to the Illinois Department of Human Services (IDHS), Division of Community Health and Prevention, to implement the Strategic Prevention Framework (SPF) within communities in Illinois. As part of this grant, in early 2006, the State Epidemiologic Outcomes Workgroup completed an Epidemiologic Profile that explored the use and misuse of tobacco, alcohol, and illicit drugs in the state of Illinois. That first endeavor was used to determine the burden of substance use and misuse across the state, and to set state priorities for the SPF. The priorities were selected on the basis of severity, proportion of the population affected, and ability to measure change in the indicator over time. The three chosen state priorities are: underage alcohol use, binge drinking, and alcohol-involved motor vehicle crash fatalities.

Data Sources

See Appendix H for more information about each data source.

Abbreviation	Source Name	Web Site
YRBS	Youth Risk Behavior Survey	www.cdc.gov/HealthyYouth/yrbs/
IYS	Illinois Youth Survey	www.illinoisyouthsurvey.org/
BRFSS	Behavioral Risk Factor Surveillance System	http://app.idph.state.il.us/brfss/
CORE	Alcohol Consumption Among College Students in Illinois: Core Survey	www.illinoishec.org
FARS	Fatality Analysis Reporting System	http://www-fars.nhtsa.dot.gov/Main/index.aspx
Healthy People 2010	Healthy People 2010 targets	http://www.healthypeople.gov/document/HTML/Volume2/26Substance.htm#_To_c489757838
ILCC	State of Illinois Liquor Control Commission	www.state.il.us/lcc/
Census Bureau	Annual Population Estimates	www.census.gov

Dividing the State into Groups of Similar Counties

This *Epidemiology of Alcohol Use* divides the state into four geographic areas, or strata: Chicago, Suburban Chicago Metro Area (excluding Chicago), Urban/Suburban (excluding Chicago Metro Area), and Rural counties. These categories were drawn from the Federal definitions of Metropolitan Statistical Areas (MSAs)¹ and are defined by CPRD as follows:

¹ Metropolitan Statistical Areas (MSAs) are defined by the Federal Office of Management and Budget as a county or group of counties that have at least one urbanized area of 50,000 or more population with a high degree of social and economic integration. http://www.whitehouse.gov/omb/inforeg_statpolicy/#ms

Chicago: the City of Chicago.

Suburban Chicago: Geographic areas within the Chicago MSA (excluding the city of Chicago).

Urban/Suburban: Counties that are part of MSAs around the state (excluding the counties of the Chicago MSA).

Rural: Counties that are not part of a defined MSA.

For a full list of the counties included in each category, see Appendix A. For a more detailed description of patterns of substance use and contributing factors within a particular strata, please see the *Composite Prevention Profile* for that strata at <http://www.cprd.illinois.edu/ildataprofiles>.

Race/Ethnicity Categories

Note that the data sources each use different language when asking respondents about race and ethnicity. This profile describes race/ethnicity using IYS language:

White

Black/African American

Latino/Latina

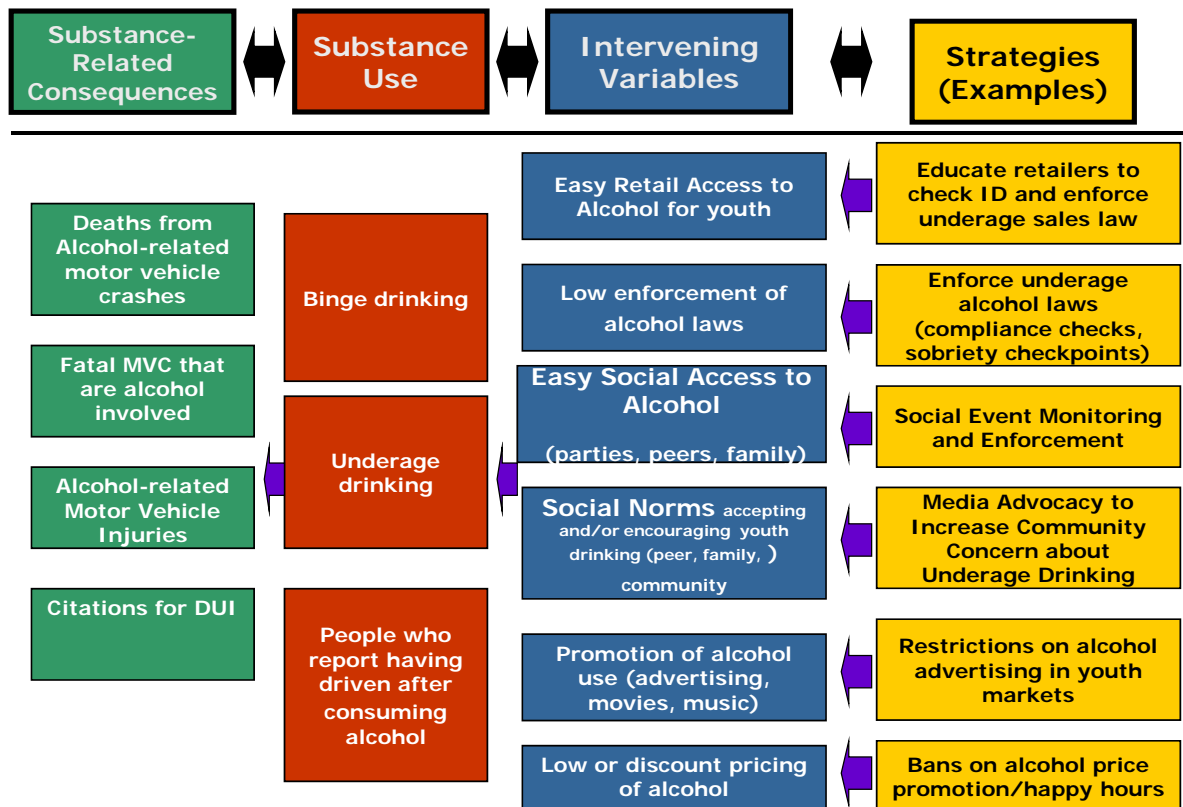
The number of responses for additional race/ethnic choices are too small to report as individual categories. These responses are reported as “Other.”

Intervening Variables and Contributing Factors

SAMHSA developed a logic model for alcohol misuse that includes seven intervening variables which guide strategy selection in the SPF grant. These intervening variables are shown in the Illinois Logic Model below.

Figure 2: SAMHSA Intervening Variables

Illinois State Logic Model for Reducing Risky Alcohol Use



Because the data we have available does not completely match SAMHSA’s intervening variable constructs, CPRD uses the phrase “Contributing Factors” for operational variables, or indicators, for which we have data.

Contributing Factors are attitudes, behaviors, and other characteristics associated with a likelihood of using ATOD. IYS asks questions about Community, Drug Use, Physical/Other Injury, Individual/Peer, Nutrition/Fitness, School, and Family factors. The indicators presented in this section help illustrate the perceptions, attitudes, and other behaviors that impact alcohol use.

While consumption priorities are important to guide overall goals for substance abuse prevention, factors that buffer against substance use or increase the likelihood of use are useful indicators to guide prevention strategy selection. These are factors that collectively influence the consumption pattern.

Intervening Variables and Contributing Factors

CPRD prioritizes contributing factors by analyzing which factors are most highly correlated with use of drug(s) identified as a consumption priority using a method called *regression analysis*.

Regression analysis involves grouping answers to highly correlated individual IYS questions into scales that represent risk and protective factors, then using statistical procedures to determine which factors best explain the variation in reported use.

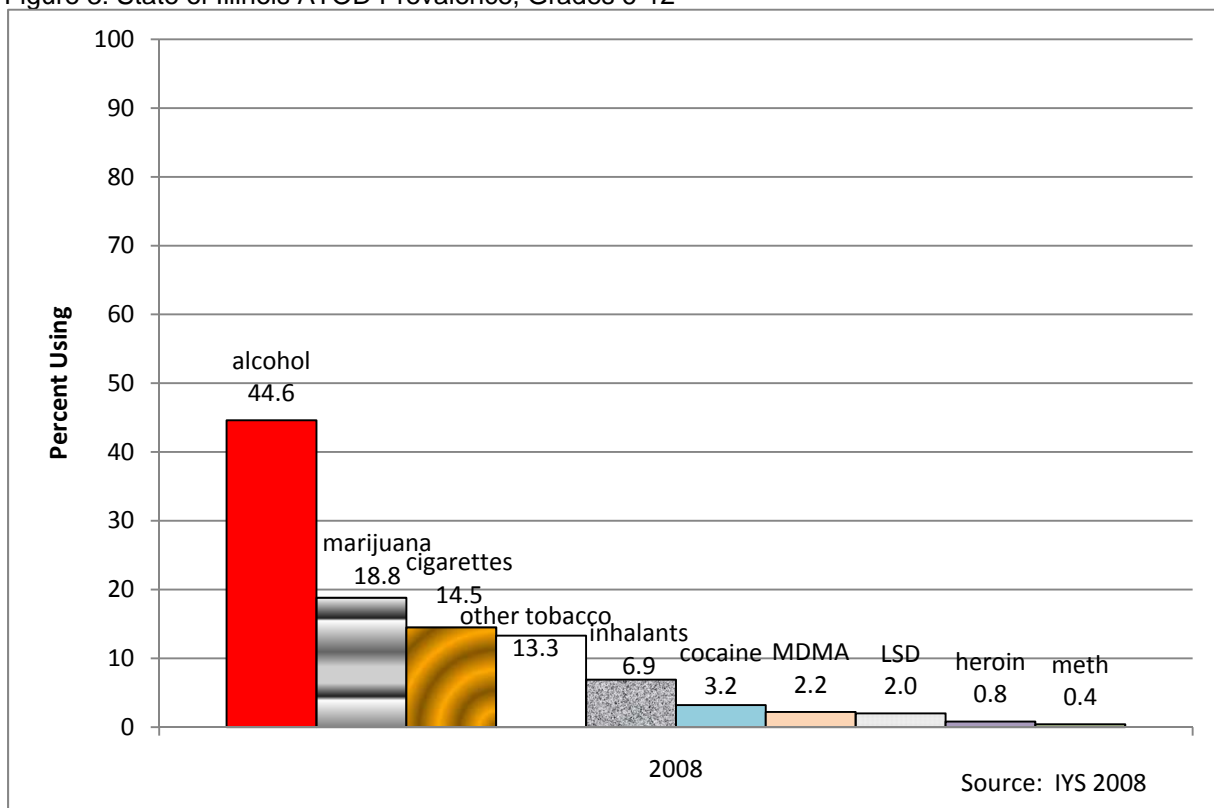
State Priorities

Underage Alcohol Use

Prevalence

All Illinois consumption data agree that alcohol is by far the most prevalent drug among youth.² The chart below ranks the prevalence of all drug use within the state in the past year³ for grades 6-12. The prevalence of alcohol use is more than double that of any other drug.

Figure 3: State of Illinois ATOD Prevalence, Grades 6-12



Because each data source surveys a different range of ages, one statewide estimate of underage alcohol use across all ages is not possible. Please see the subsections below for analysis of underage alcohol use by age, geographic area, and other demographics.

² YRBS and IYS confirm for alcohol, tobacco, and other drugs. BRFSS confirms for alcohol and tobacco. CORE confirms for alcohol, tobacco, and marijuana.

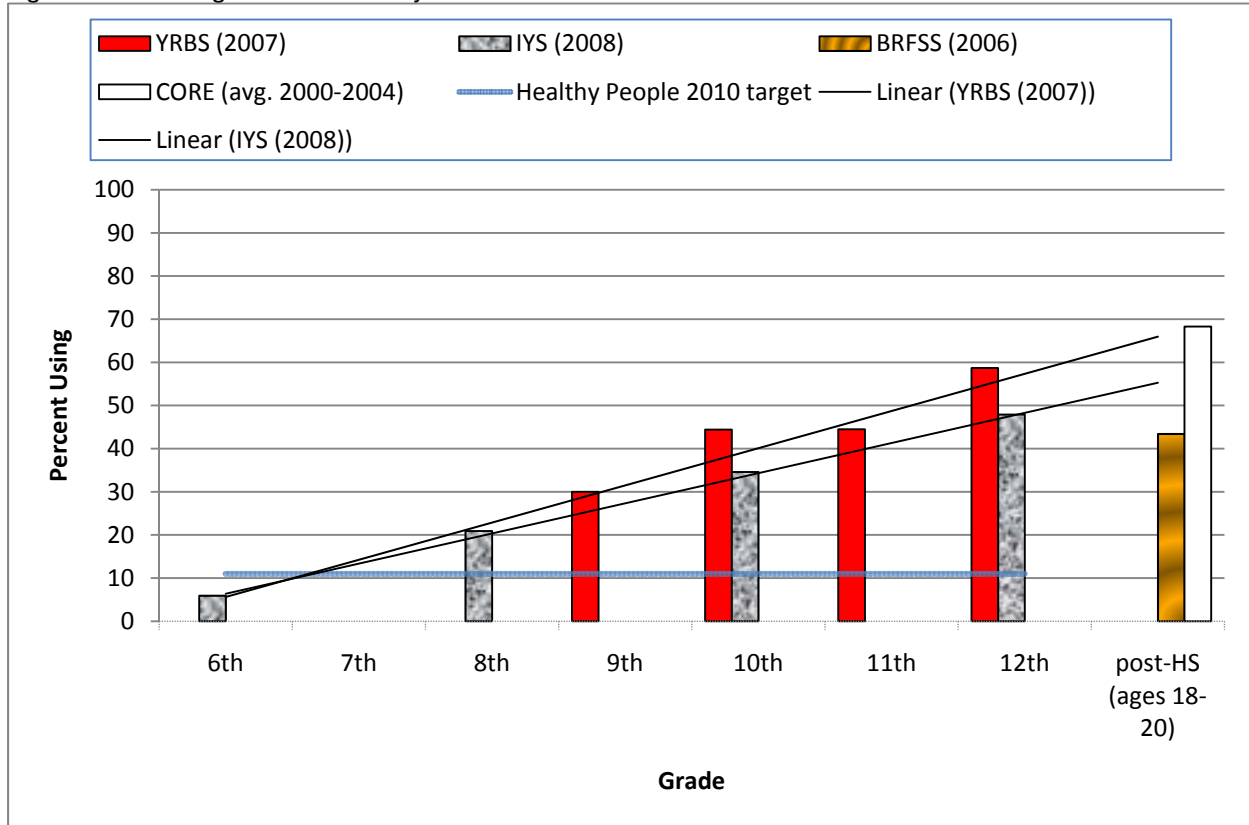
³ Measures of current (30-day) use are not available for all drugs.

Underage Alcohol Use

Age

The pattern of alcohol consumption as the most prevalent drug holds true for all grades, with the exception of inhalant use, which is as high in 6th grade as alcohol. Inhalant use declines as age and alcohol use increases. The chart below shows the increase of alcohol use as age increases.

Figure 4: Underage Alcohol Use by Grade and Data Source



The 95% confidence intervals for the IYS and YRBS estimates overlap. This means that there is no statistical difference between the estimates. The YRBS results show no statistical differences between Illinois and U.S. current alcohol use.

Community Type

According to IYS data, the prevalence of underage alcohol use does not vary by geographic area, except for 8th grade use. Patterns of use at 8th grade show youth in the City of Chicago somewhat more likely to have used alcohol in the past 30 days. This is confirmed, although not statistically significant, by YRBS data, which indicates higher use by Chicago 9th graders than all Illinois 9th graders. After 9th grade, Chicago underage alcohol use is lower than the state average.

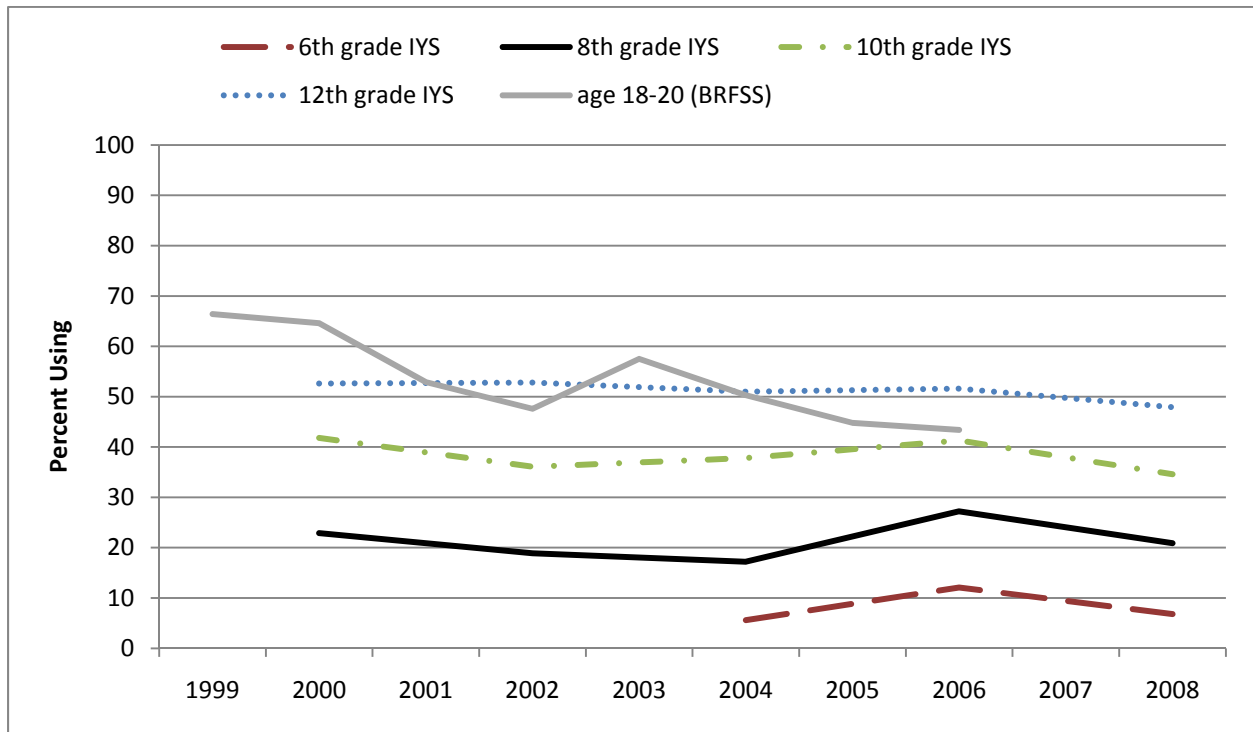
See Page 16 for discussion of the interactions among underage alcohol use, race/ethnicity, and geographic area.

Underage Alcohol Use

Trend

While underage alcohol use trends are relatively flat or decreasing⁴ for the state as a whole and for most ages, the slope of the statistical linear trend for 8th grade use (IYS 2000-2008)⁵ shows an increase, despite the fact that there is a decrease from 2006 to 2008. This statistical increase for 8th grade use is even more pronounced in some geographic areas. All other data sources show underage alcohol use decreasing over time at the state and national level. Changes in IYS survey procedures and/or the small number of data points may impact the statistical increase. As data points are added in future years, the slope of the trend line may change.

Figure 5: Trends in Underage Alcohol Use



⁴ BRFSS (18-20 year olds).

⁵ There are not enough data points in YRBS data to show trend.

Race/Ethnicity

YRBS shows underage alcohol use is significantly⁶ lower for Black/African American high-school-age youth than for either White or Latino/Latina youth. IYS, BRFSS (all ages), and CORE (all ages) statewide data confirms this.

Data on relative use between White and Latino/Latina youth are mixed, especially at different ages (see discussion on Page 16).

Figure 6: Significant Differences in Underage Alcohol Use by Race/Ethnicity

Grades	White	Black/African American	Latino/Latina
	% (95% CI)	% (95% CI)	% (95% CI)
9 th -12 th	47.8 [#] (40.5–55.3)	28.5 ^{#†} (22.1–35.8)	50.1 [†] (42.1–58.1)
12 th	67.4 [#] (55.6–77.4)	36.2 [#] (28.5–44.8)	59.1 (42.5–73.8)

There is no statistical difference in underage alcohol use by race/ethnicity between Illinois and the United States.

Gender

BRFSS data for 2006 indicate males (63.4%) are more likely to use alcohol than females (52.5%) between the ages of 18 and 20. CORE data confirms this for people 18 and older. IYS indicates no difference. YRBS, on the other hand, indicates patterns of higher youth female use than for males, although these differences are not statistically significant. See Page 16 for discussion of the interactions between underage alcohol use and binge drinking by age and gender.

⁶ Significant differences between groups within Illinois are noted in the table as

Statistically significant difference between White and Black/African American students for this grade(s);

† Statistically significant difference between Black/African American and Latino/Latina students for this grade(s).

Binge Drinking

Binge Drinking

Prevalence

Since binge drinking varies widely by age, no single data source provides a statewide estimate of binge drinking for all age groups. The four data sources also define binge drinking differently (some questions ask “within the last two weeks,” some “within the last month”). The following estimates do, however, give a broad picture of the prevalence of binge drinking within the state.

15.2% of youth in grades 6th-12th (IYS 2008; 5+ drinks; last 2 weeks)

28.0% of high school students (YRBS 2007; 5+ drinks; last month)

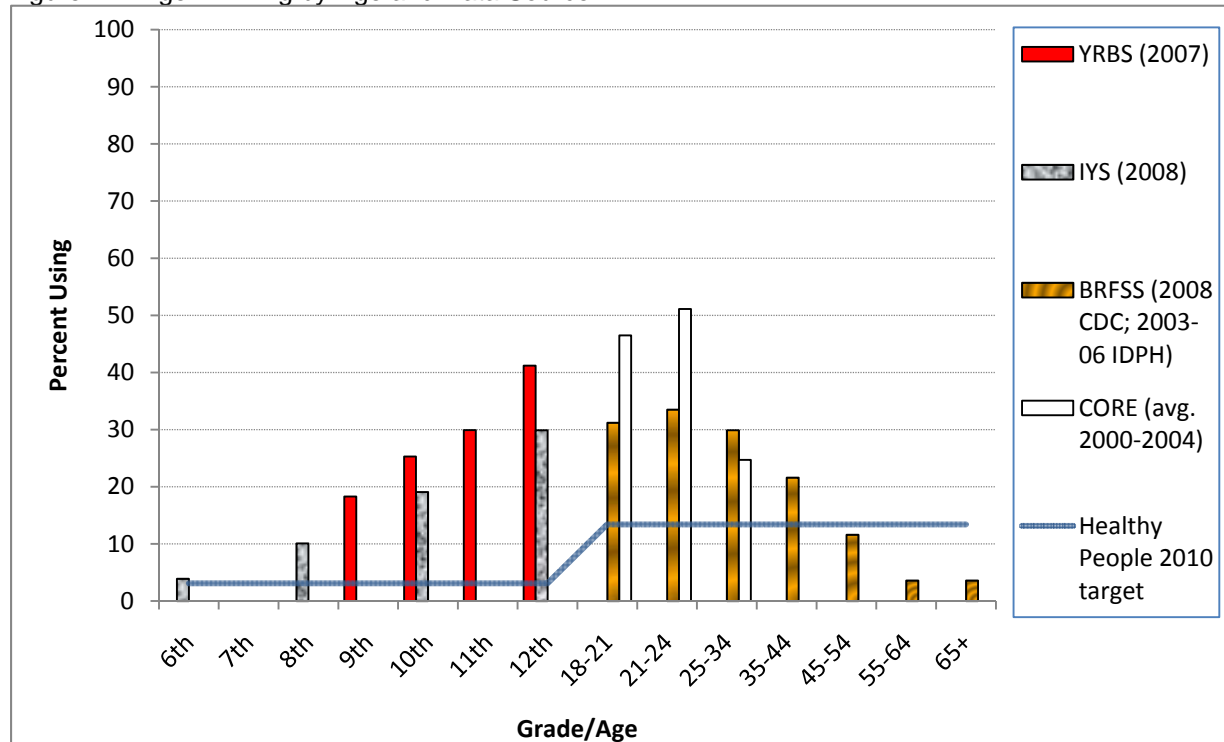
48.3% of college students (CORE 2004; 5+ drinks; last 2 weeks)

19.9% of adults 18 and over (BRFSS 2007; 5+ drinks; last month)

Age

Although the four sources of binge drinking data do not agree completely on the percent of people who binge drink, they do indicate that binge drinking increases with age until ages 18-24, then decreases as adults get older. The chart on the next page shows patterns of binge drinking by age group⁷ for all four sources. See Page 16 for discussion of the interactions between underage alcohol use and binge drinking by age and gender.

Figure 7: Binge Drinking by Age and Data Source



⁷ Note: BRFSS data from IDPH, BRFSS data from CDC, and CORE do not use the same age categories. In the chart above, BRFSS 21-24 represents data from CDC labeled 18-24. CORE 25-34 represents data labeled 25+.

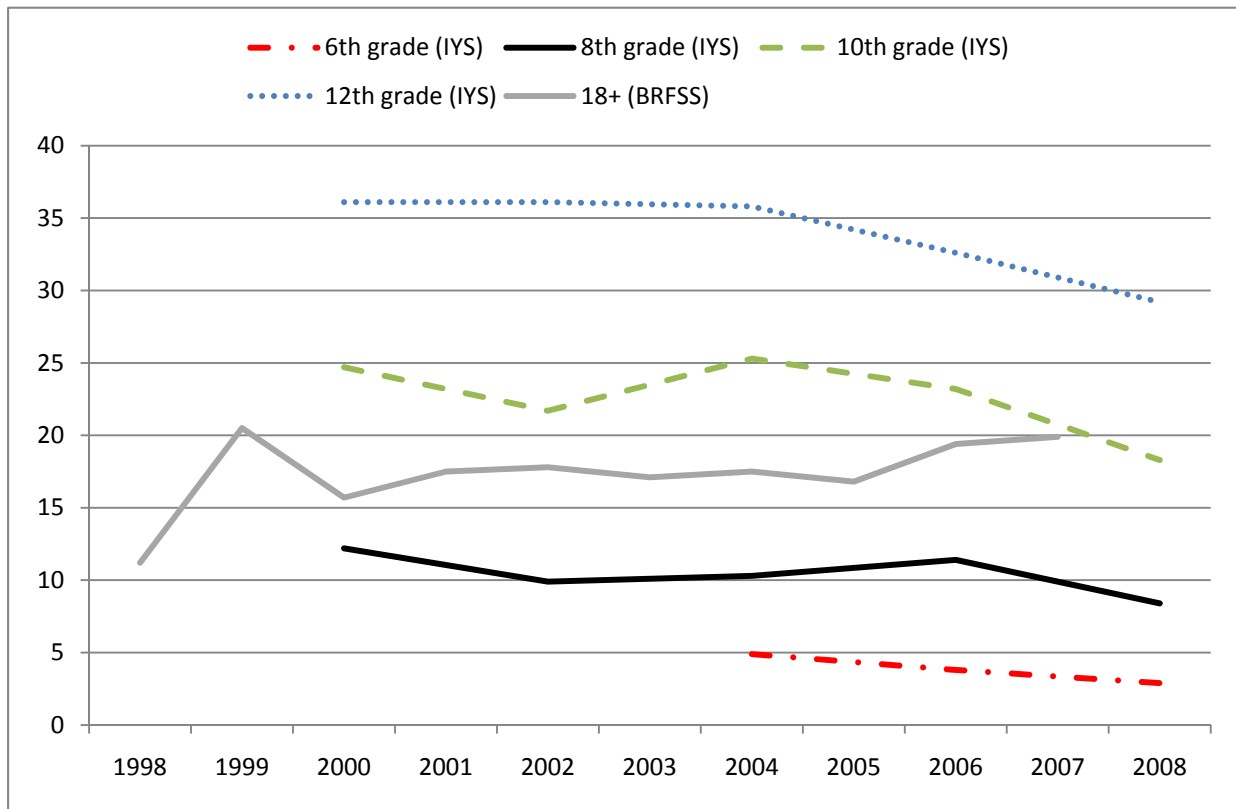
Community Type

YRBS indicates that binge drinking for Chicago youth is lower than for the state as a whole (Illinois 28.0%; Chicago 20.0%). BRFSS and IYS indicate no statistical differences among geographic areas.

Trend

The trend for binge drinking in adults shows a small (slope=0.45) increase between 1998 and 2007 (BRFSS). Binge drinking trends for youth show small decreases. Changes in IYS survey procedures and/or the small number of data points may impact the statistical increase. As data points are added in future years, the slope of the trend line may change.

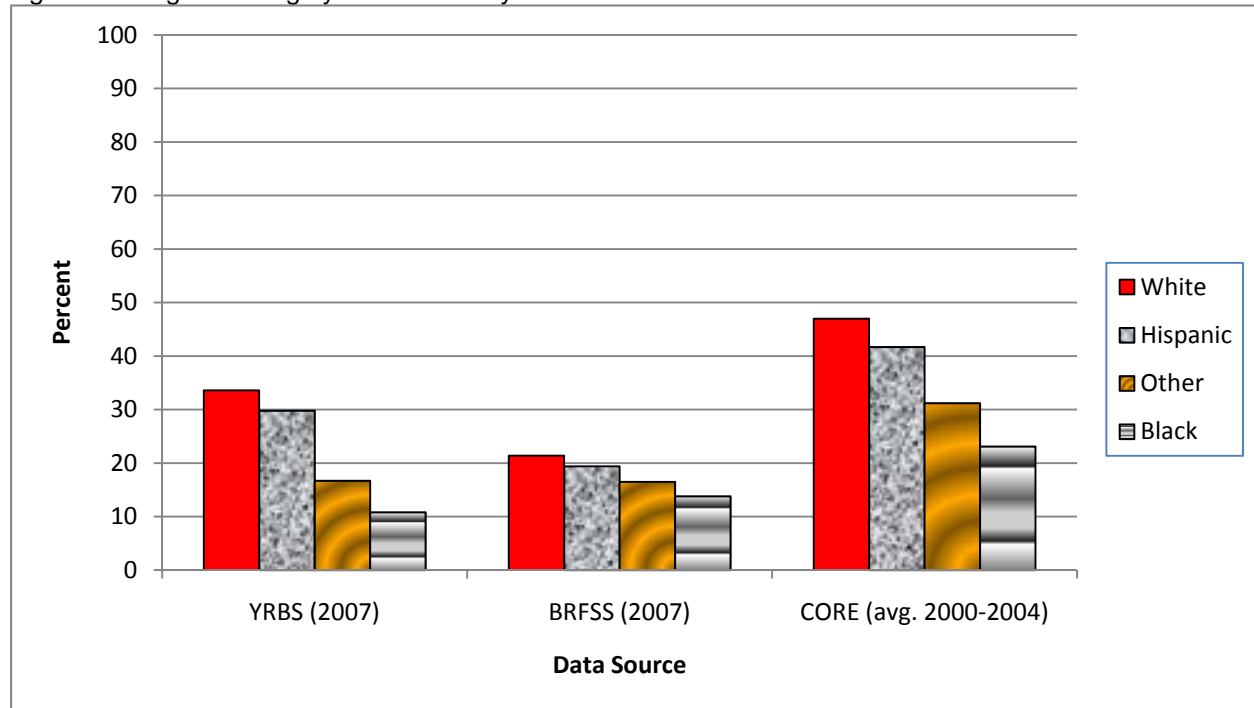
Figure 8: Trends in Binge Drinking



Race/Ethnicity

With the caveat that race and ethnicity are defined slightly differently in the four surveys, three of the four data sources agree that people who identify as White, non-Latino/Latina have the highest percent of binge drinkers.⁸ In all four sources, people who identify as Black/African American, non-Latino/Latina have the lowest rate of binge drinking.⁹ These differences between Black/African American and White binge drinking are statistically significant. The chart below shows the binge drinking by race for the three data sources that agree on the relative proportions.

Figure 9: Binge Drinking by Race/Ethnicity and Data Source



See Page 16 for discussion of the interactions between underage alcohol use and binge drinking by age and race/ethnicity.

Gender

While YRBS indicates a greater percent of females binge drink (although the difference is not statistically significant), the other three data sources report males as more likely to binge drink. BRFSS 2007 data, for example, indicates a statistically significant difference of 28.1% of males binge compared with 12.1% of females. See Page 16 for discussion of the interactions between underage alcohol use and binge drinking by age and gender.

⁸ IYS indicates Latino/Latina with the highest percentage and Other as the lowest. When controlling for age, IYS data confirms YRBS (see Page 16).

⁹ The differences between Black/African American and White and between Black/African American and Latino/Latina are statistically significant for YRBS.

*Alcohol-Involved Motor Vehicle Accident Fatalities*¹⁰

Prevalence

FARS data for 2007 indicates the number of alcohol-involved motor vehicle accident fatalities in Illinois was 561, which is 4.4 fatalities per 100,000 population. The Healthy People 2010 target for deaths from alcohol-related motor vehicle crashes is 4 per 100,000 population. Illinois has a lower fatality rate from alcohol-involved motor vehicle accidents than the United States as a whole (5.1 per 100,000 population).

Figure 10: 2007 Alcohol-involved Motor Vehicle Accident Fatalities by Role in Accident

Role in Accident	Percent of Fatalities
Driver	61.9
Passenger	22.0
Pedestrian	15.1
Bicyclist	0.9

Of the people who died in alcohol-involved motor vehicle accident fatalities, most (88.1%) tested positive for alcohol, whether they were the driver of an involved vehicle or not.

Figure 11: Fatalities with Positive Alcohol Tests by Role in Accident

	Percent who tested positive for alcohol by role				Total
	Driver	Passenger	Pedestrian	Bicyclist	
Fatalities	92.1%	77.8%	87.3%	60.0%	88.1%

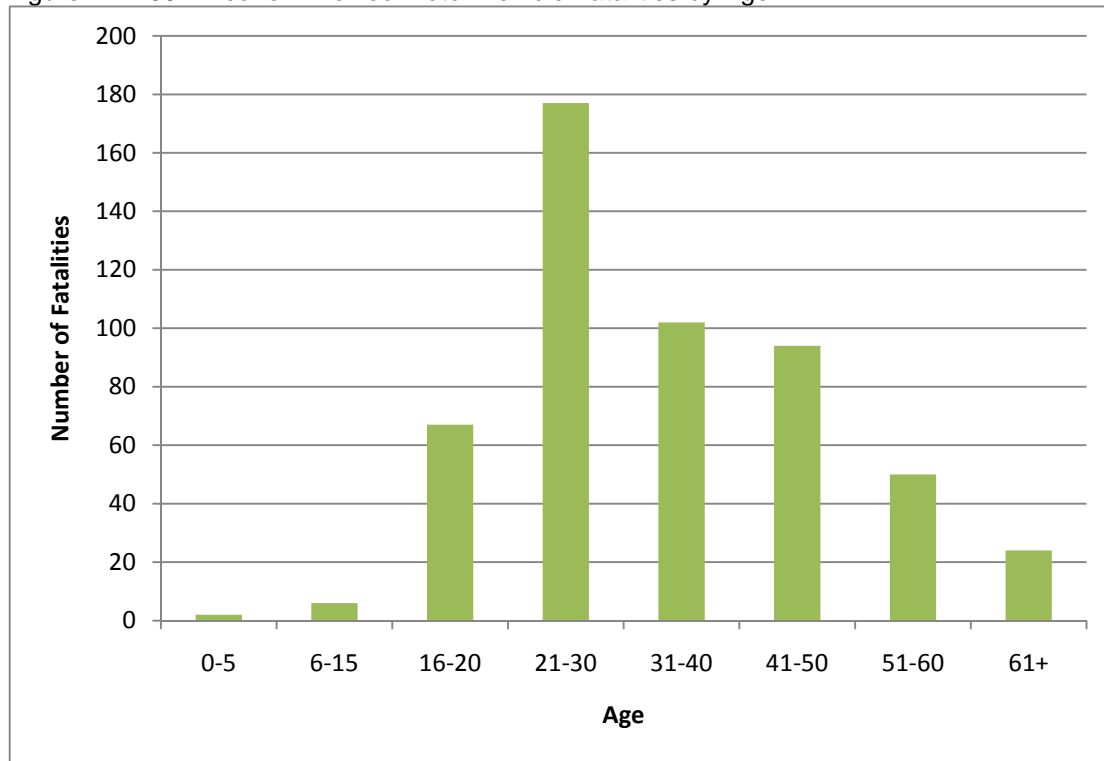
¹⁰ An alcohol involved motor vehicle accident is one in which at least one driver or non-occupant (pedestrian or cyclist) involved is determined to have had a BAC of .01 gram per deciliter (g/dL) or higher (NHTSA, 2007). Any fatality in one of these MVCs is considered an alcohol-involved fatality.

Alcohol-Involved Motor Vehicle Accident Fatalities

Age

Of the alcohol-involved motor vehicle deaths in 2007, more people died who were ages 21-30 than any other group.

Figure 12: 2007 Alcohol-Involved Motor Vehicle Fatalities by Age

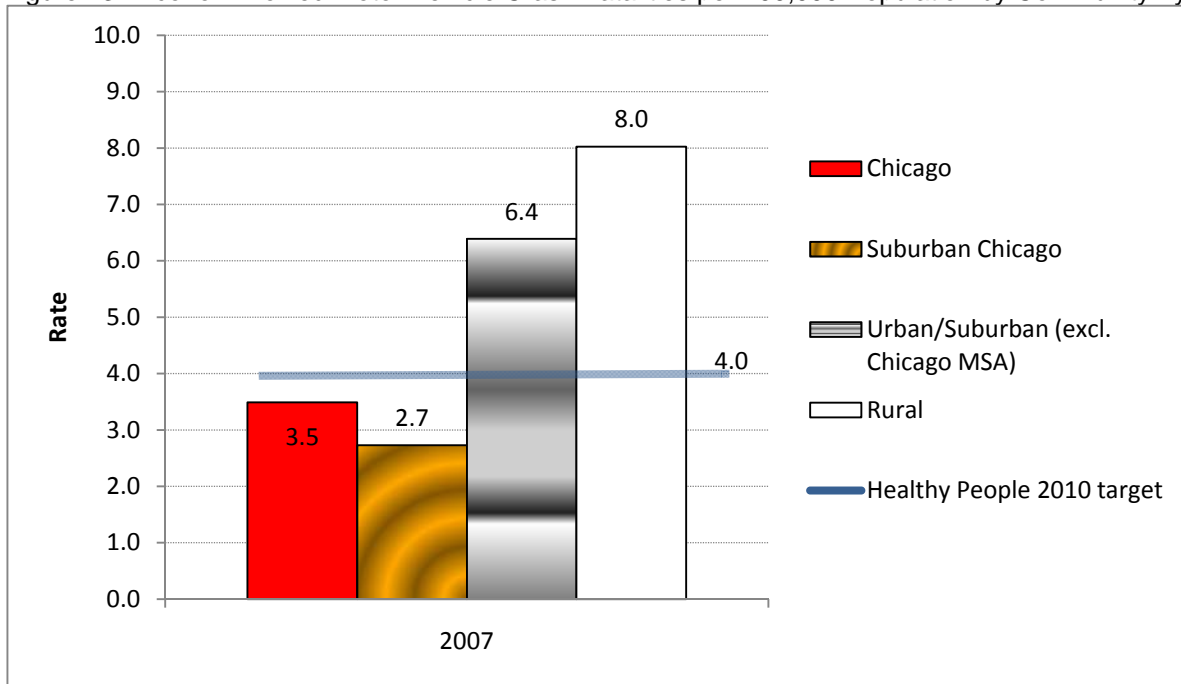
**Gender**

More than three-fourths (78.4%) of the alcohol-involved fatalities in 2007 were male. Of those who died and tested positive for alcohol, 82.4% were male.

Community Type

Rural areas consistently have the highest alcohol-related MVC fatality rate in the MSA area type comparison, while Suburban Chicago consistently has the lowest rate (Table 12).

Figure 13: Alcohol-Involved Motor Vehicle Crash Fatalities per 100,000 Population by Community Type



Alcohol-Involved Motor Vehicle Accident Fatalities

Trend

The trends of both absolute number of fatalities and the rate per 100,000 population have been decreasing over time. The charts below show trends for both.

Figure 14: Fatalities Over Time

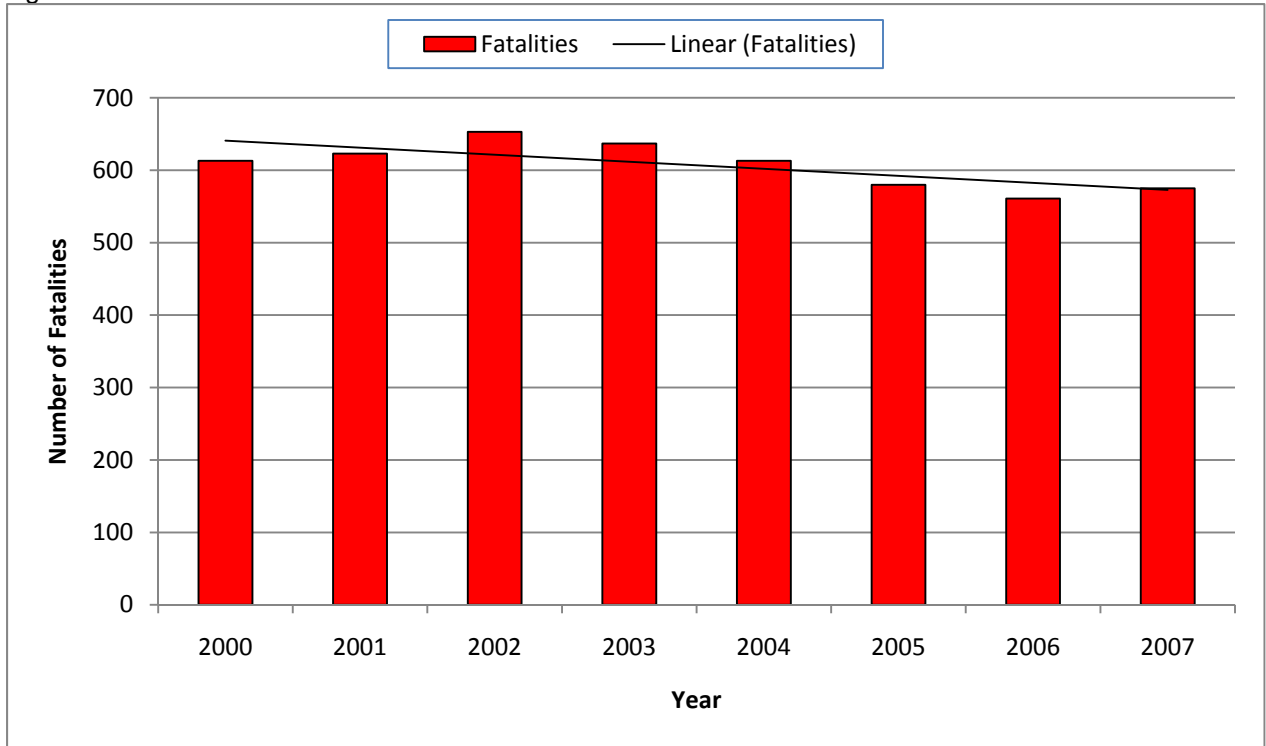
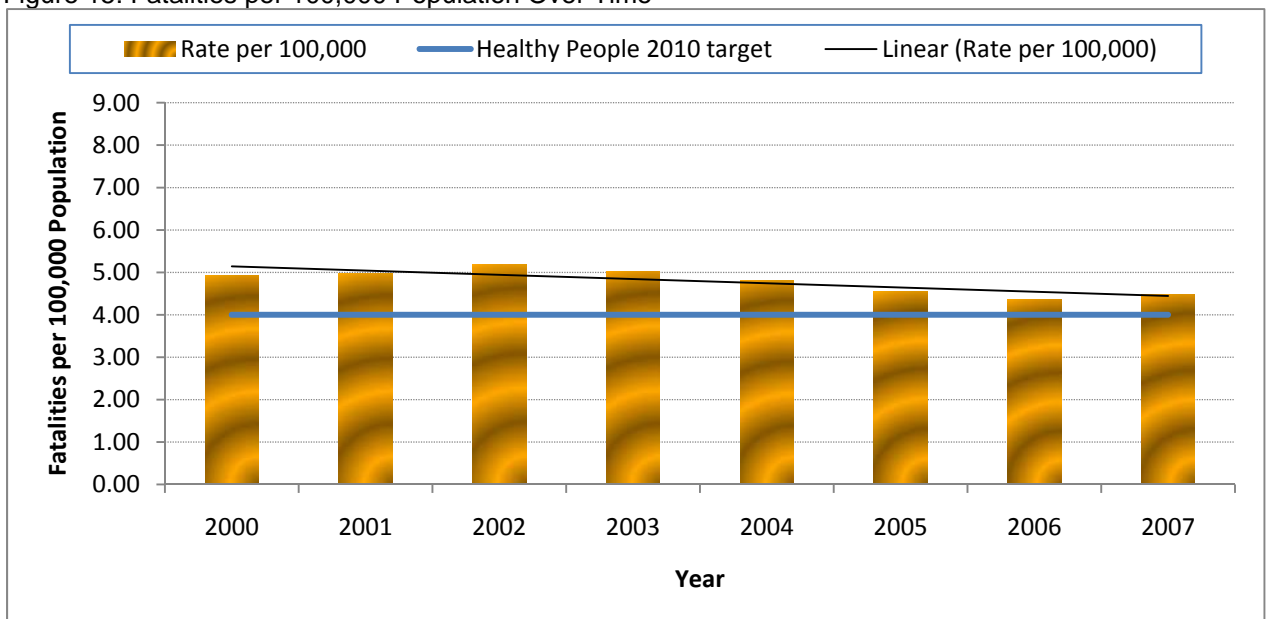


Figure 15: Fatalities per 100,000 Population Over Time



Interaction of Priorities by Demographics

The following analysis uses all 2008 IYS data, rather than the sample used for state data, because the state sample was not drawn to represent sub-state analysis of this type. Please note the analysis may or may not be representative for the state as a whole, but does show clear patterns and consistency within the data itself. The patterns below retain their consistency when the analysis controls for schools with high and low levels of low income students, schools with high and low levels of diversity, and whether the school is public or private.

Figure 16: Alcohol Use by Geographic Area and Race/Ethnicity

Geographic Area	Race/Ethnicity with <i>highest</i> rate of underage alcohol use in the last 30 days	Race/Ethnicity with <i>lowest</i> rate of underage alcohol use in the last 30 days
Chicago	White	Black/African American
Suburban Chicago	White & Latino/Latina	Black/African American
Other Urban/Suburban	Latino/Latina	Black/African American
Rural	none (all equal)	none (all equal)

Figure 17: Alcohol Use by Grade and Race/Ethnicity, IYS

Grade	Geographic Area	Race/Ethnicity with <i>highest</i> rate of underage alcohol use in the last 30 days	Race/Ethnicity with <i>lowest</i> rate of underage alcohol use in the last 30 days
6 th	Chicago	Latino/Latina	White
	Suburban Chicago	Latino/Latina	White
	Other Urban/Suburban	Latino/Latina	White
	Rural	Black/African American	White & Latino/Latina
8 th	Chicago	Latino/Latina	Black/African American
	Suburban Chicago	Latino/Latina	White
	Other Urban/Suburban	Latino/Latina	White
	Rural	Latino/Latina	White
10 th	Chicago	White	Black/African American
	Suburban Chicago	Latino/Latina	Black/African American
	Other Urban/Suburban	Latino/Latina	Black/African American
	Rural	Latino/Latina	White & Black/African American
12 th	Chicago	White	Black/African American
	Suburban Chicago	White	Black/African American
	Other Urban/Suburban	Latino/Latina	Black/African American
	Rural	none (all equal)	none (all equal)

The differences by race are most pronounced in Chicago at the 12th grade, where 70% of 12th grade White students report using alcohol in the last 30 days compared to 35% of Black/African American 12th grade students. Binge drinking for 12th graders in Chicago shows a similar disparity: 52% of White students compared with 16% of Black/African American.

The table below shows relative use by grade and gender. This pattern holds true for all strata and races.

Figure 18: Alcohol Use by Grade and Gender, IYS

Grade	Gender with <i>higher rate of</i>	
	Underage alcohol use in the last 30 days	Five or more drinks in a row over the last 2 weeks
6 th	none (both equal)	none (both equal)
8 th	girls	girls
10 th	girls	boys
12 th	boys ¹¹	boys

Binge drinking, with few exceptions, follows underage use by geography, grade, and race/ethnicity.

College Students

There are important gender, age, race and sector differences in average drinks per week and incidents of binge drinking (as defined by five or more drinks in one sitting). Men consume more than women. Traditional college age students (17-24) consume more than non-traditional age students. Caucasians and Native Americans are the highest consuming racial groups. Four-year residential students consume more and more often than do their community college counterparts (50.3% of four-year students reported drinking 5 or more drinks in one sitting in the past weeks, compared with 43.6% of community college students).¹²

¹¹ YRBS indicates girls with higher rate at 12th grade.

¹² *Alcohol Consumption Among College Student in Illinois: 2006 Core Survey Results and Analysis*. Illinois Higher Education Center for Alcohol, Other Drug , and Violence Prevention. Eastern Illinois University Health Service. Page 1.

Intervening Variables

SAMHSA developed a logic model for alcohol misuse that includes seven intervening variables which guide strategy selection in the SPF grant. These intervening variables are listed below with data when available.

Easy retail access to alcohol for youth

Retail Liquor Licenses

Studies suggest that factors related to licensed establishments, such as density of businesses, hours and days of sale, and responsible service of alcohol, affect levels of alcohol consumption and related problems throughout communities. Studies of the density or the number of alcohol licenses per population size have found a statistically significant relationship between density of alcohol outlets, consumption, and related problems such as violence, other crime, and health problems, although many of these studies are weaker cross-sectional designs (Gliksman and Rush, 1986; Gruenewald et al., 1993; Harford et al., 1979; Ornstein and Hannsens, 1985; Scribner et al., 1995; Smith, 1989; Stitt and Giacomassi, 1992). Chaloupka and Wechsler (1996) specifically studied college students and found higher levels of drinking, drinking participation, and high-risk drinking among underage and older college students when a larger number of businesses were selling alcohol within one mile of campus.¹³

Figure 19: Retail Licenses per 10,000 Population, by MSA Area, 2007

Statewide	16.7
Chicago	15.2
Suburban Chicago	13.7
Other Urban/ Suburban	21.0
Rural	23.5

Youth Obtaining Alcohol from Retail Sources

Both YRBS and IYS indicate retail sources of alcohol as much lower than social sources among youth. YRBS reports only 4.7% of youth who currently drank alcohol bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station during the 30 days before the survey

YRBS indicates a statistical difference between the percent of underage White (3.2%) and Black/African American (12.9%) youth who obtain alcohol from retail sources. IYS data confirms this difference.

¹³ Traci L. Toomey, Ph.D., and Alexander C. Wagenaar, Ph.D.. *J. Stud. Alcohol*, Supplement No. 14: 193-205, 2002

Low enforcement of alcohol laws

No data available.

Easy social access to alcohol

IYS data indicates social access to alcohol as the most common. CPRD conducted exploratory factor analysis that showed the following indicators as related to social sources of alcohol.

Figure 20: 2008 Social Access to Alcohol, IYS

Source	Percent of all respondents	Comments
Friend	60.0	Compared with other races and ethnicities, Black/African American youth are least likely to obtain alcohol from a friend.
Party	55.7	Compared with other races and ethnicities, Black/African American youth are least likely to obtain alcohol at a party.
From home without parents knowing	25.4	Compared with other races and ethnicities, Suburban Chicago and White students are most likely to get alcohol from home; Black/African American youth are least likely.
Older sibling	25.1	Within the City of Chicago, compared with other races and ethnicities, White students are most likely to get alcohol from an older sibling.
Parent	22.0	Compared with other races and ethnicities, Black/African American are least likely to obtain alcohol from parents.
Gave stranger \$	16.1	Exploratory factor analysis indicates this question may be measuring the concept of social access. One hypothesis is that the “stranger” to whom the youth gave money may be a stranger to them personally, but known to a friend.
Took from friend’s home	16.0	Exploratory factor analysis indicates this question may be measuring the concept of social access, rather than theft. One hypothesis is that the person answering the question took alcohol from a friend’s home with the friend’s knowledge.

Almost half (49.1%) of IYS respondents report it would be “sort of easy” or “very easy” to get alcohol if they wanted it.

CORE reports students under 21 prefer to consume alcohol at private parties (65%), followed by where they live (47%) and residence halls (38%).¹⁴

¹⁴ *Alcohol Consumption Among College Student in Illinois: 2006 Core Survey Results and Analysis*. Illinois Higher Education Center for Alcohol, Other Drug, and Violence Prevention. Eastern Illinois University Health Service. Page 24.

Low perceived risk of alcohol use

The Healthy People 2010 target is for 80% of youth to see great risk in consuming 5+ drinks at one sitting. IYS indicates 38.6% of youth perceive great risk in consuming 5 or more drinks at one sitting. Only 28.1% of youth perceive great risk in regular alcohol use.

Social norms accepting and/or encouraging youth drinking

The Healthy People 2010 target is for 83% of adolescents to disapprove of having one or two alcoholic drinks nearly every day. IYS data indicates the following youth perceptions of social norms.

Figure 21: IYS 2008 Social Norms Perceptions

Question	Percent of all respondents
How wrong do you think it is for someone your age to drink beer, wine, or hard liquor regularly (very wrong + wrong)	72.9
How wrong would most adults (over 21) in your neighborhood think it is for kids your age to drink alcohol? (very wrong + wrong)	73.4
How wrong would your parents think it is for you to drink alcohol? (very wrong + wrong)	88.0
What percent of students at your school do you think have had beer, wine, or hard liquor in the past 30 days?	
more than 20%	93.4
more than 50%	59.7
What are the chances you would be seen as cool if you began drinking alcohol regularly, that is, at least once or twice a month? (pretty good chance + very good chance)	11.3

[College] Student-reported attitudes toward alcohol reflect the idea that college students positively associate alcohol with social interaction. Examples of the prevalence of alcohol use and student attitudes include: 58% of students perceive that alcohol facilitates a connection with peers; 63.8% of students perceive it gives people something to talk about; 41.9% indicate that alcohol is an easy way to deal with stress; and 73.7% believe that alcohol helps to break the ice in social situations.¹⁵

Promotion of alcohol use (advertising, movies, music, etc)

No data available.

Low or discount pricing of alcohol

No data available.

¹⁵ *ibid.* Page 1.

Prioritization of Contributing Factors

As discussed above, data is not available for all of SAMHSA's intervening variables. Contributing factors that can be measured by IYS are used in the analysis described below.

CPRD analyzed separate IYS middle school and high school contributing factors data using exploratory factor analysis. These factors were extracted from groups of variables measured through the 2008 survey, and scales of related indicators were created. The scales and other individual items from the survey were then incorporated into a regression model to determine what factors are highly correlated with 30-day alcohol use among middle and high school students. Two additional factors (serious delinquent behavior and truancy) together with those in the lists below explained almost 40% of the variance in both middle school and high school 30-day alcohol use. These additional factors were not identified as objectives, as they are just as likely to be consequences of alcohol use rather than contributing factors to augment underage drinking. For a complete list of indicators included in the statistical analysis of each factor, see Appendix F.

Middle School Priority Factors

The following contributing factors were statistically significant in the regression model for middle school youth. Statistically significant correlation ***does not imply that the factor causes*** alcohol use, but identifies those factors that have a strong relationship with alcohol use. The analysis indicates these are the measureable risk and protective factors that most influence underage drinking. If possible, it would be ideal to address all of them collectively. When that is not possible, the factors at the top of the list show a stronger correlation than those at the bottom.

Social access to alcohol (More social access correlates with *higher* alcohol use)

Retail access to alcohol (More retail access correlates with *higher* alcohol use)

Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)

Ease of access to alcohol (Perceived easy access to alcohol correlates with *higher* alcohol use)

Parental monitoring (More parental monitoring correlates with *lower* alcohol use)

Hours home alone in a typical week (More hours home alone correlates with *higher* alcohol use)

High School Priority Factors

The statistically significant factors for high school students are slightly different than for middle school students. Again, it would be ideal to address all the listed factors, but they are prioritized below with the highest correlation first.

Retail access to alcohol (More retail access correlates with *higher* alcohol use)

Social access to alcohol (More social access correlates with *higher* alcohol use)

Parents likely catch alcohol use (Perception that parents would catch use correlates with *lower* use)

Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)

Perceived risk (Higher perceived risk with alcohol use correlates with *lower* alcohol use)

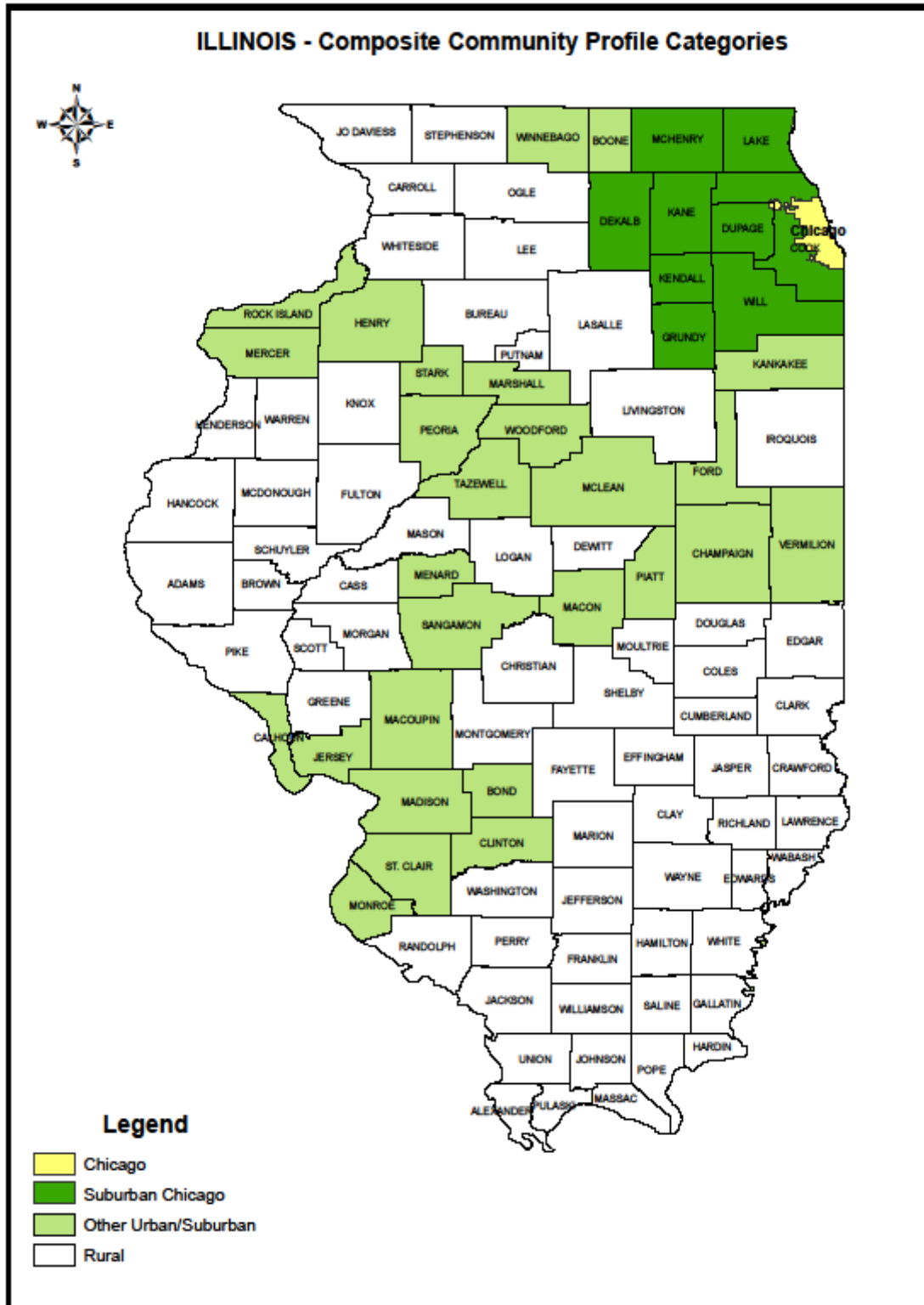
Perception of peer use (Higher perceived peer alcohol use correlates with *higher* alcohol use)

School attachment (Stronger attachment correlates with *higher* alcohol use, perhaps pointing to the influence of peer pressure)

Be seen as cool if drink (Higher perception of being seen as cool correlates with *higher* alcohol use)

Appendix A. Composite Profile Strata

Figure 22: Map of Composite Profile Strata



City of Chicago

City of Chicago; does not include remainder of Cook County

Suburban Chicago Metro Area (excluding City of Chicago)

Cook County (excl. Chicago)	DeKalb County	DuPage County
Grundy County	Kane County	Kendall County
Lake County	McHenry County	Will County

Urban/Suburban (excluding Chicago Metro Area)

Bond County	Boone County	Calhoun County
Champaign County	Clinton County	Ford County
Henry County	Jersey County	Kankakee County
Macon County	Macoupin County	Madison County
Marshall County	McLean County	Menard County
Mercer County	Monroe County	Peoria County
Piatt County	Rock Island County	Sangamon County
St. Clair County	Stark County	Tazewell County
Vermilion County	Winnebago County	Woodford County

Rural

Adams County	Alexander County	Brown County
Bureau County	Carroll County	Cass County
Christian County	Clark County	Clay County
Coles County	Crawford County	Cumberland County
DeWitt County	Douglas County	Edgar County
Edwards County	Effingham County	Fayette County
Franklin County	Fulton County	Gallatin County
Greene County	Hamilton County	Hancock County
Hardin County	Henderson County	Iroquois County
Jackson County	Jasper County	Jefferson County
Jo Daviess County	Johnson County	Knox County
LaSalle County	Lawrence County	Lee County
Livingston County	Logan County	Marion County
Mason County	Massac County	McDonough County
Montgomery County	Morgan County	Moultrie County
Ogle County	Perry County	Pike County
Pope County	Pulaski County	Putnam County
Randolph County	Richland County	Saline County
Schuyler County	Scott County	Shelby County
Stephenson County	Union County	Wabash County
Warren County	Washington County	Wayne County
White County	Whiteside County	Williamson County

Appendix B. Intervening Variables and Contributing Factors for City of Chicago

This appendix lists data specific to the City of Chicago. For a more data on the patterns of substance use and contributing factors within this geographic area, please see the *Composite Prevention Profile* for the City of Chicago at <http://www.cprd.illinois.edu/ildataprofiles>.

Easy retail access to alcohol for youth

Retail Liquor Licenses

Figure 23: Retail licenses per 10,000 population, Chicago 2007

Chicago	15.2
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Easy social access to alcohol

Figure 24: 2008 Social Access to Alcohol, City of Chicago, IYS

Source	Percent of all respondents
Friend	49.6
Party	49.6
From home without parents knowing	21.3
Older sibling	21.7
Parent	18.7
Gave stranger \$	21.1
Took from friend's home	15.8

Low perceived risk of alcohol use

The Healthy People 2010 target is for 80% of youth to see great risk in consuming 5+ drinks at one sitting. IYS indicates 38.5% of Chicago respondents perceive great risk in consuming 5 or more drinks at one sitting. Only 32.9% of Chicago respondents perceive great risk in regular alcohol use.

Social norms accepting and/or encouraging youth drinking

The Healthy People 2010 target is for 83% of adolescents to disapprove of having one or two alcoholic drinks nearly every day. IYS data indicates the following youth perceptions of social norms in Chicago respondents.

Figure 25: IYS 2008 Social Norms Perceptions, Chicago

Question	Percent of all respondents
How wrong do you think it is for someone your age to drink beer, wine, or hard liquor regularly (very wrong + wrong)	75.5
How wrong would most adults (over 21) in your neighborhood think it is for kids your age to drink alcohol? (very wrong + wrong)	69.9
How wrong would your parents think it is for you to drink alcohol? (very wrong + wrong)	89.9
What percent of students at your school do you think have had beer, wine, or hard liquor in the past 30 days?	
more than 20%	90.1
more than 50%	71.0
What are the chances you would be seen as cool if you began drinking alcohol regularly, that is, at least once or twice a month? (pretty good chance + very good chance)	12.5

Contributing factors priorities

In the City of Chicago the following contributing factors were statistically significant in the regression model for youth. The statistically significant factors for high school students in the City of Chicago are slightly different than for middle school students. Statistically significant correlation *does not imply that the factor causes* alcohol use, but identifies those factors that have a strong relationship with alcohol use.

Middle School Priority Factors

- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)
- Ease of access to alcohol (Perceived easy access to alcohol correlates with *higher* alcohol use)

High School Priority Factors

- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)
- Perception of peer use (Higher perceived peer alcohol use correlates with *higher* alcohol use)
- Perceived risk (Higher perceived risk with alcohol use correlates with *lower* alcohol use)
- School attachment (Stronger attachment correlates with *higher* alcohol use, perhaps pointing to the influence of peer pressure.)
- Be seen as cool if drink (Higher perception of being seen as cool correlates with *higher* alcohol use)

Appendix C. Intervening Variables and Contributing Factors for Suburban Chicago

This appendix lists data specific to the Suburban Chicago Metropolitan Area. For a more data on the patterns of substance use and contributing factors within this geographic area, please see the *Composite Prevention Profile* for Suburban Chicago at <http://www.cprd.illinois.edu/ildataprofiles>.

Easy retail access to alcohol for youth

Retail Liquor Licenses

Figure 26: Retail licenses per 10,000 population, Suburban Chicago, 2007

Suburban Chicago	13.7
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Easy social access to alcohol

Figure 27: 2008 Social Access to Alcohol, Suburban Chicago, IYS

Source	Percent of all respondents
Friend	62.6
Party	58.7
From home without parents knowing	30.6
Older sibling	25.9
Parent	24.1
Gave stranger \$	16.0
Took from friend's home	19.7

Low perceived risk of alcohol use

The Healthy People 2010 target is for 80% of youth to see great risk in consuming 5+ drinks at one sitting. IYS indicates 40.6% of Suburban Chicago respondents perceive great risk in consuming 5 or more drinks at one sitting. Only 30.1% of Suburban Chicago respondents perceive great risk in regular alcohol use.

Social norms accepting and/or encouraging youth drinking

The Healthy People 2010 target is for 83% of adolescents to disapprove of having one or two alcoholic drinks nearly every day. IYS data indicates the following youth perceptions of social norms in Suburban Chicago.

Figure 28: IYS 2008 Social Norms Perceptions, Suburban Chicago

Question	Percent of all respondents
How wrong do you think it is for someone your age to drink beer, wine or hard liquor regularly (very wrong + wrong)	73.1
How wrong would most adults (over 21) in your neighborhood think it is for kids your age to drink alcohol? (very wrong + wrong)	75.6
How wrong would your parents think it is for you to drink alcohol? (very wrong + wrong)	88.2
What percent of students at your school do you think have had beer, wine, or hard liquor in the past 30 days?	
more than 20%	94.4
more than 50%	71.3
What are the chances you would be seen as cool if you began drinking alcohol regularly, that is, at least once or twice a month? (pretty good chance + very good chance)	12.3

Contributing factors priorities

In Suburban Chicago the following contributing factors were statistically significant in the regression model for youth. The statistically significant factors for high school students in Suburban Chicago are slightly different than for middle school students. Statistically significant correlation *does not imply that the factor causes* alcohol use, but identifies those factors that have a strong relationship with alcohol use.

Middle School Priority Factors

- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)
- Ease of access to alcohol (Perceived easy access to alcohol correlates with *higher* alcohol use)
- Hours home alone in a typical week (More hours home alone correlates with *higher* alcohol use)
- Parental monitoring (More parental monitoring correlates with *lower* alcohol use)
- Perceived risk (Higher perceived risk with alcohol use correlates with *lower* alcohol use)

High School Priority Factors

- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Parents likely catch alcohol use (Perception that parents would catch use correlates with *lower* use)
- Perceived risk (Higher perceived risk with alcohol use correlates with *lower* alcohol use)
- Perception of peer use (Higher perceived peer alcohol use correlates with *higher* alcohol use)
- Be seen as cool if drink (Higher perception of being seen as cool correlates with *higher* alcohol use)
- School attachment (Stronger attachment correlates with *higher* alcohol use, perhaps pointing to the influence of peer pressure.)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)

Appendix D. Intervening Variables and Contributing Factors for Urban/Suburban Illinois

This appendix lists data specific to Urban/Suburban Illinois (excluding Chicago Metro Area). For a more data on the patterns of substance use and contributing factors within this geographic area, please see the *Composite Prevention Profile* for Urban/Suburban Illinois at <http://www.cprd.illinois.edu/ildataprofiles>.

Easy retail access to alcohol for youth

Retail Liquor Licenses

Figure 29: Retail licenses per 10,000 population, Urban/Suburban, 2007

Other Urban/ Suburban	21.0
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Easy social access to alcohol

Figure 30: 2008 Social Access to Alcohol, Urban/Suburban, IYS

Source	Percent of all respondents
Friend	59.1
Party	50.3
From home without parents knowing	24.4
Older sibling	24.2
Parent	24.0
Gave stranger \$	14.4
Took from friend's home	15.3

Low perceived risk of alcohol use

The Healthy People 2010 target is for 80% of youth to see great risk in consuming 5+ drinks at one sitting. IYS indicates 36.5% of Urban/Suburban respondents perceive great risk in consuming 5 or more drinks at one sitting. Only 25.4% of Urban/Suburban respondents perceive great risk in regular alcohol use.

Social norms accepting and/or encouraging youth drinking

The Healthy People 2010 target is for 83% of adolescents to disapprove of having one or two alcoholic drinks nearly every day. IYS data indicates the following youth perceptions of social norms for Urban/Suburban respondents.

Figure 31: IYS 2008 Social Norms Perceptions, Urban/Suburban

Question	Percent of all respondents
How wrong do you think it is for someone your age to drink beer, wine or hard liquor regularly (very wrong + wrong)	74.2
How wrong would most adults (over 21) in your neighborhood think it is for kids your age to drink alcohol? (very wrong + wrong)	74.8
How wrong would your parents think it is for you to drink alcohol? (very wrong + wrong)	88.3
What percent of students at your school do you think have had beer, wine, or hard liquor in the past 30 days?	
more than 20%	93.1
more than 50%	70.1
What are the chances you would be seen as cool if you began drinking alcohol regularly, that is, at least once or twice a month? (pretty good chance + very good chance)	12.2

Contributing factors priorities

In Urban/Suburban counties the following contributing factors were statistically significant in the regression model for youth. The statistically significant factors for high school students in the Urban/Suburban strata are slightly different than for middle school students. Statistically significant correlation *does not imply that the factor causes* alcohol use, but identifies those factors that have a strong relationship with alcohol use.

Middle School Priority Factors

- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)

High School Priority Factors

- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Parents likely catch alcohol use (Perception that parents would catch use correlates with *lower* use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)
- Perceived risk (Higher perceived risk with alcohol use correlates with *lower* alcohol use)
- Perception of peer use (Higher perceived peer alcohol use correlates with *higher* alcohol use)
- Be seen as cool if drink (Higher perception of being seen as cool correlates with *higher* alcohol use)

Appendix E. Intervening Variables and Contributing Factors for Rural Illinois

This appendix lists data specific to Rural Illinois. For a more data on the patterns of substance use and contributing factors within this geographic area, please see the *Composite Prevention Profile* for Rural Illinois at <http://www.cprd.illinois.edu/ildataprofiles>.

Easy retail access to alcohol for youth

Retail Liquor Licenses

Figure 32: Retail licenses per 10,000 population, Rural, 2007

Rural	23.5
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Easy social access to alcohol

Figure 33: 2008 Social Access to Alcohol, Rural, IYS

Source	Percent of all respondents
Friend	62.0
Party	53.1
From home without parents knowing	23.2
Older sibling	24.6
Parent	25.4
Gave stranger \$	15.0
Took from friend's home	14.7

Low perceived risk of alcohol use

The Healthy People 2010 target is for 80% of youth to see great risk in consuming 5+ drinks at one sitting. IYS indicates 33.6% of Rural respondents perceive great risk in consuming 5 or more drinks at one sitting. Only 22.4% of Rural respondents perceive great risk in regular alcohol use.

Social norms accepting and/or encouraging youth drinking

The Healthy People 2010 target is for 83% of adolescents to disapprove of having one or two alcoholic drinks nearly every day. IYS data indicates the following youth perceptions of social norms for Rural respondents.

Figure 34: IYS 2008 Social Norms Perceptions, Rural

Question	Percent of all respondents
How wrong do you think it is for someone your age to drink beer, wine or hard liquor regularly (very wrong + wrong)	71.9
How wrong would most adults (over 21) in your neighborhood think it is for kids your age to drink alcohol? (very wrong + wrong)	71.4
How wrong would your parents think it is for you to drink alcohol? (very wrong + wrong)	86.1
What percent of students at your school do you think have had beer, wine, or hard liquor in the past 30 days?	
more than 20%	94.1
more than 50%	71.6
What are the chances you would be seen as cool if you began drinking alcohol regularly, that is, at least once or twice a month? (pretty good chance + very good chance)	13.4

Contributing factors priorities

In Rural areas the following contributing factors were statistically significant in the regression model for youth. The statistically significant factors for high school students in Rural areas are slightly different than for middle school students. Statistically significant correlation *does not imply that the factor causes* alcohol use, but identifies those factors that have a strong relationship with alcohol use. For a complete list of indicators included in the statistical analysis of each factor, see Appendix F.

Middle School Priority Factors

- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Ease of access to alcohol (Perceived easy access to alcohol correlates with *higher* alcohol use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)

High School Priority Factors

- Retail access to alcohol (More retail access correlates with *higher* alcohol use)
- Social access to alcohol (More social access correlates with *higher* alcohol use)
- Parents likely catch alcohol use (Perception that parents would catch use correlates with *lower* use)
- Parental approval of alcohol use (Higher approval correlates with *higher* alcohol use)
- Perceived risk (Higher perceived risk with alcohol use correlates with *lower* alcohol use)
- Perception of peer use (Higher perceived peer alcohol use correlates with *higher* alcohol use)
- School attachment (Stronger attachment correlates with *higher* alcohol use, perhaps pointing to the influence of peer pressure.)

Appendix F. IYS Questions Related to Significant Risk & Protective Factors for Alcohol Use

Alcohol use

Dependent Variable:

On how many occasions (if any) have you had beer, wine or hard liquor during the past 30 days?

Social access to alcohol

Risk Factor: More frequent social access to alcohol correlates with higher alcohol use in the past 30 days.

Middle school components

During the past year, how often did you usually get your own beer, wine, or liquor from the following sources?

A friend gave it to me.

I took it from a friend's home.

I got it at a party.

I took it from home without my parents knowing.

How wrong do you think it is for someone your age to: drink beer, wine or hard liquor (for example, vodka, whiskey, or gin) regularly?

High school components

During the past year, how often did you usually get your own beer, wine, or liquor from the following sources?

A friend gave it to me.

I took it from a friend's home.

I got it at a party.

I took it from home without my parents knowing.

I gave a stranger money to buy it for me.

How wrong do you think it is for someone your age to: drink beer, wine or hard liquor (for example, vodka, whiskey, or gin) regularly?

Retail access to alcohol

Risk Factor: More frequent retail access to alcohol correlates with higher alcohol use in the past 30 days.

Middle school components

During the past year, how often did you usually get your own beer, wine, or liquor from the following sources?

I bought it at a gas station.

I bought it at a store.

I bought it at a bar or restaurant.

High school components

During the past year, how often did you usually get your own beer, wine, or liquor from the following sources?

I bought it at a gas station.

I bought it at a store.

I bought it at a bar or restaurant.

If you bought beer, wine, or liquor during the past year, did you use a fake ID?

Parental approval of alcohol use

Risk Factor: Higher parental approval of alcohol use correlates with higher alcohol use in the past 30 days.

During the past year, how often did you usually get your own beer, wine, or liquor from the following sources? My parents gave them to me.

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)?

Parental monitoring

Protective Factor: More parental monitoring correlates with lower alcohol use in the past 30 days.

Middle school components

When I am not at home, one of my parents knows where I am and who I am with.

My parents want me to call if I'm going to be late getting home.

My parents ask if I've gotten my homework done.

If you drank some beer or wine or liquor (for example, vodka, whiskey, or gin) without your parents' permission would you be caught by your parents?

Would your parents know if you did not come home on time?

If you go to a party where alcohol is served, would you be caught by your parents?

High school components

When I am not at home, one of my parents know where I am and who I am with.

My parents want me to call if I'm going to be late getting home.

My parents ask if I've gotten my homework done.

Parents likely catch alcohol use (high school only)

Protective Factor: Higher perception that parents would catch alcohol use correlates with lower alcohol use in the past 30 days.

If you drank some beer or wine or liquor (for example, vodka, whiskey, or gin) without your parents' permission would you be caught by your parents?

Would your parents know if you did not come home on time?

If you go to a party where alcohol is served, would you be caught by your parents?

If you drank and drove, would you be caught by your parents?

If you rode in a car driven by a teen driver who had been drinking, would you be caught by your parents?

Perception of peer use (high school only)

Risk Factor: Higher perceived peer alcohol use correlates with higher alcohol use in the past 30 days.

What percent of students at your school do you think have had beer, wine, or hard liquor in the past 30 days?

Ease of access to alcohol (middle school only)

Risk Factor: More easy access to alcohol correlates with higher alcohol use in the past 30 days.

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?

Hours home alone in a typical week (middle school only)

Risk Factor: More hours home alone in a week correlates with higher alcohol use in the past 30 days.

Calculated hours home alone in a typical week from two questions.

How many days each week do you take care of yourself after school without an adult being there?

Think of those days that you are home after school without an adult being there. How many hours a day do you usually care for yourself after school?

Perceived risk (high school only)

Protective Factor: Higher perceived risk with alcohol use correlates with lower alcohol use in the past 30 days.

How much do you think people risk harming themselves (physically or in other ways) if they: take one or two drinks of alcoholic beverage (beer, wine, liquor) nearly every day?

How much do you think people risk harming themselves (physically or in other ways) if they: have five or more drinks of an alcoholic beverage once or twice a week?

School attachment (high school only)

Risk Factor: Agreeing more strongly with school attachment statements correlates with higher alcohol use in the past 30 days, perhaps pointing to the influence of peer pressure.

How much do you agree or disagree with the following statements?

I feel like a real part of my school.

People at this school are friendly to me.

I am treated with as much respect as other students.

I can really be myself at this school.

Be seen as cool if drink (high school only)

Risk Factor: A stronger chance of being seen as cool correlates with higher alcohol use in the past 30 days.

What are the chances you would be seen as cool if you began drinking alcohol regularly, that is, at least once or twice a month?

Appendix G. Data Values for Charts

Figure 3: State of Illinois ATOD Prevalence, Grades 6-12

IYS 2008	
Substance	% using
alcohol	44.6
marijuana	18.8
cigarettes	14.5
other tobacco	13.3
inhalants	6.9
cocaine	3.2
MDMA	2.2
LSD	2.0
heroin	0.8
meth	0.4

Figure 4: Underage Alcohol Use by Grade and Data Source

% Using Alcohol								
Data Source	6th Grade	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade	post- HS (ages 18-20)
YRBS (2007)				30.0	44.4	44.5	58.7	
IYS (2008)	5.9		20.9		34.6		47.9	
BRFSS (2006)								43.4
CORE (avg. 2000-2004)								68.3
Healthy People 2010 target	11	11	11	11	11	11	11	

Figure 5: Trends in Underage Alcohol Use

% Using Alcohol										
Data Source	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
6th grade IYS						5.6		12.1		6.8
8th grade IYS		22.9		18.9		17.2		27.2		20.9
9th grade YRBS									30	
10th grade IYS		41.8		36.1		37.8		41.3		34.6
10th grade YRBS									44.4	
11th grade YRBS									44.5	
12th grade IYS		52.6		52.8		51		51.6		47.9
12th grade YRBS									58.7	
age 18-20 BRFSS	66.4	64.6	52.9	47.6	57.5	50.3	44.8	43.4		

Figure 7: Binge Drinking by Age and Data Source

% Binge Drinking														
Data Source	Grade							Age						
	6 th	7 th	8 th	9 th	10 th	11 th	12 th	18-20	21-24	25-34	35-44	45-54	55-64	65+
YRBS (2007)				18.3	25.3	29.9	41.2							
IYS (2008)	3.9		10.1		19.1		29.9							
BRFSS (2003-06 IDPH; 2008 CDC)								31.2	33.5	29.9	21.6	11.6	3.6	3.6
CORE (avg. 2000-2004)								46.5	51.1	24.7				
Healthy People 2010 target	3.1	3.1	3.1	3.1	3.1	3.1	3.1	13.4	13.4	13.4	13.4	13.4	13.4	13.4

Figure 8: Trends in Binge Drinking

% Binge Drinking											
Data Source	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
6th grade (IYS)							4.9		3.8		2.9
8th grade (IYS)			12.2		9.9		10.3		11.4		8.4
10th grade (IYS)			24.7		21.7		25.3		23.2		18.3
12th grade (IYS)			36.1		36.1		35.8		32.6		29.2
18+ (BRFSS)	11.2	20.5	15.7	17.5	17.8	17.1	17.5	16.8	19.4	19.9	

Figure 9: Binge Drinking by Race/Ethnicity and Data Source

% Binge Drinking			
Race/ Ethnicity	YRBS (2007)	BRFSS (2007)	CORE (avg. 2000-2004)
White	33.6	21.4	47.0
Hispanic	29.8	19.4	41.7
Other	16.7	16.5	31.2
Black	10.8	13.8	23.1

Figure 12: 2007 Alcohol-Involved Motor Vehicle Fatalities by Age

Age	Deaths
0-5	2
6-15	6
16-20	67
21-30	177
31-40	102
41-50	94
51-60	50
61+	24

Figure 13: Alcohol-Involved Motor Vehicle Crash Fatalities per 100,000 Population by Community Type

Community Type	Fatalities per 100,000 population
Chicago	3.5
Suburban Chicago	2.7
Urban/Suburban (excl. Chicago MSA)	6.4
Rural	8.0
Healthy People 2010 target	4

Figure 14: Fatalities Over Time

	2000	2001	2002	2003	2004	2005	2006	2007
Fatalities	613	623	653	637	613	580	561	575

Figure 15: Fatalities per 100,000 Population Over Time

	2000	2001	2002	2003	2004	2005	2006	2007
Fatalities per 100,000 population	4.9	5.0	5.2	5.0	4.8	4.5	4.4	4.5
Healthy People 2010 target	4	4	4	4	4	4	4	4

Appendix H: Data Sources

Name of Data Source	Type of Data Source	Primary Content	SponsorAgency	Data Collection Agency	Contact	Data Collection Method	Data Collection Instrument/s	Population Targeted	Sample and Sampling Frame
Alcohol Consumption Among College Students in Illinois: Core Survey (CORE)	Reports on-line. Data analysis available by contract.	Self-reported information related to college students' alcohol and other drug behavior, attitudes, beliefs, and consequences.	Illinois Department of Human Services (IDHS), Bureau of Substance Abuse Prevention	Illinois Higher Education (IHEC); Eastern Illinois University; Core Institute, SIU.	Core Institute: 618.453.4420 E-mail coreinst@siu.edu IHEC: 217-581-2019 E-mail for Becky Markwell, Director: bsmarkwell@eiu.edu	Paper and online	Sample surveys are available at the Core Institute website: http://www.siu.edu/%7Ecoreinst/ Surveys are included as appendix in IHEC report	Persons attending Illinois institutions of higher education.	Sample varies from year to year. Participation by institution is voluntary. Each institution determines sample within their student body.
Behavioral Risk Factor Surveillance System (BRFSS)	On-line query system, annual reports, download data files	Questions cover behavioral risk factors (for example, alcohol and tobacco use), preventive health measures, HIV/AIDS, health status, limitation of activity, and health care access and utilization.	U.S. DHHS, CDC	Varies by State. In Illinois, IDPH collects data.	Bruce Steiner IDPH, Center for Health Statistics Phone: 217-785-1064 Email:bruce.steiner@illinois.gov	Computer Assisted Telephone Interviewing	Dual questionnaire procedure; sample divided and each half asked different versions (use same core questions, different state-added questions)	Civilian, non-institutionalized population 18 years of age and older who reside in households with telephones.	Probability sample of all households with telephones in the state. Most states use a disproportionate stratified sample (DSS) design. Puerto Rico and the U.S. Virgin Islands used a simple random sample design. Increasing State participation over time, with 15 States in 1984 and all 50 States and the District of Columbia since 1994.
Fatality Analysis Reporting System (FARS)	On-line query system and downloadable data files. Prepared reports are also available.	FARS Web-Based Encyclopedia offers a more intuitive and powerful approach for retrieving fatal crash information.	United States DOT	National Highway Traffic Safety Administration	NHTSA, Center for Statistics and Analysis Phone:(202) 366-4198 or 1-800-934-8517 E-mail via web form at: https://www.nhtsa.dot.gov/email.cfm	Coded from state documents: Police Accident Reports, vehicle registration, driver licensr. State Highway Department. Vital Statistics, Death certificates, Coroner reports, hospital records, EMS reports	Forms used to code data from documents.	nationwide	population based
Healthy People 2010		<i>Healthy People 2010</i> is a comprehensive set of disease prevention and health promotion objectives for the Nation to achieve over the first decade of the new century. Created by scientists both inside and outside of Government, it identifies a wide range of public health priorities and specific, measurable objectives.		The 28 focus areas of Healthy People 2010 were developed by leading Federal agencies with the most relevant scientific expertise. The development process was informed by the Healthy People Consortium—an alliance of more than 350 national membership organizations and 250 State health, mental health, substance abuse, and environmental agencies.		N/A		U.S. population	N/A

Appendix H: Data Sources

Name of Data Source	Response Rate (year reported)	Reliability, Validity, or Accuracy Information (year reported)	First Year of Data Collection	Timing of Data Collection	Data Availability	Consistency of Data over Time	Demographic Data	Geography/Disaggregation Availability	Major Strengths
Alcohol Consumption Among College Students in Illinois: Core Survey (CORE)	unknown	Core website has information regarding survey reliability (word documents). (2005). IHEC reports demonstrate similarity (or lack of similarity) between sample and population demographics in each report.	2000	Biennial on Even Years	report issued approximately one year following survey	CORE items have not changed over time since IHEC survey began.	Age, gender, race/ethnicity, home of residence, part/full time student, year in school	National (CORE) State (IHEC survey--not representative of state population)	
Behavioral Risk Factor Surveillance System (BRFSS)	Extensive response rate information available overall and by state for each year. Report available at CDC website: http://www.cdc.gov/brfss/technical_infodata/quality.htm	Extensive information available for each year, available during the following year. Reports available at CDC website: http://www.cdc.gov/brfss/technical_infodata/quality.htm	1984 (data sets) 1995 (BRFSS query system) 1998 (BRFSS regional data from IDPH)	Annual	one year lag	Core of questions asked in all States for all years, standardized optional questions administered at State discretion, rotating items asked every other year in all States, State-specific questions for identified needs.	Gender, age, educational attainment, race/ethnicity, household income, employment status, and marital status.	National State Regional--see IL BRFSS page for regional data (Chicago, Cook, Collar, Urban, and Rural counties)	Many questions taken from national surveys (NHIS, NHANES). Takes advantage tested items and allows states to compare data with other surveys. New questions are cognitive and field tested before inclusion.
Fatality Analysis Reporting System (FARS)	N/A	Series of consistency checks, timeliness, completeness, and accuracy. Statistical control charts are also employed to monitor the coding of key data elements. Data set not considered 'closed' until 14 months after the end of the calendar year, to allow for full data collection from external sources.	1975	quarterly	Data become available in May of the following year (approximate).	Data are subject to change in BAC limit overtime and reports from state agencies/officials.	age, gender, race/ethnicity	Statewide County	
Healthy People 2010	N/A								

Appendix H: Data Sources

Name of Data Source	Type of Data Source	Primary Content	SponsorAgency	Data Collection Agency	Contact	Data Collection Method	Data Collection Instrument/s	Population Targeted	Sample and Sampling Frame
Illinois Youth Survey (IYS)	Biennial Report. Data not publicly available. CHS will run additional analyses on request, provided confidentiality of students and schools can be maintained.	Youth risk behaviors, including ATOD use and violence. School, Family, Community, and Individual/Peer factors. Schools can add questions as well.	IDHS, Division of Community and Health Prevention	Chestnut Health Systems, Lighthouse Institute	Alan Markwood Phone: 309-827-6026 E-mail: amarkwood@chestnut.org	On-site, classroom based, paper and pencil, with trained facilitators. On-line administration also available	Questionnaire initially based on <i>Communities that Care</i> project. Uses a scannable booklet design (no separate answer sheet). Available in English and Spanish.	Students in 6,8,10, and 12th grades in Illinois, both public and private schools.	1990-1998: scientific weighted sample at school level 2000-2006: all schools invited to participate, weighted sample drawn from participating schools 2008: weighted sample drawn with focused recruitment for these schools & all schools invited to participate
Youth Risk Behavior Surveillance System (YRBSS)	On-line query system, annual reports, download data files	Six categories of health risk behaviors: injury, tobacco use, alcohol and other drug use, sexual behavior, diet and nutrition, and physical activity.	CDC	ISBE	Glenn Steinhausen	Classroom based survey administration. Make-up surveys conducted for absentees.	Anonymous self-administered questionnaires. Can use answer sheets or scannable questionnaires.	Students in grades 9-12.	Each state and local school-based YRBS employs a two-stage, cluster sample design to produce representative samples of students in grades 9–12 in their jurisdiction. Samples are selected by using PCSample.

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Name of Data Source	Response Rate (year reported)	Reliability, Validity, or Accuracy Information (year reported)	First Year of Data Collection	Timing of Data Collection	Data Availability	Consistency of Data over Time	Demographic Data	Geography/Disaggregation Availability	Major Strengths
Illinois Youth Survey (IYS)		<p>Compensation used for differing patterns of nonresponse. Weighting used for estimation.</p> <p>Results from the 2002 survey can be compared with findings from the 2000 survey, which used a similar sample design and set of questions. The percentages for 2000 given in the 2002 report are based on a better sampling procedure than originally used, and so should be used in place of the previously reported 2000 figures.</p>	1990, 93, 95, and 97 (ISAY), 1998, 2000, 2002 (UW study; called IYS) 2004 (IYS)	biennial on even years	approximately 1 year between survey administration and state report	Survey contains changes in item inclusion, particularly between 1997 and 1998 & 2002 and 2004. Occasional changes to reflect definitional changes on a national scale and national drug trends also occur.	Gender, age, year in school, race/ethnicity, urban/rural	Statewide; regional/group comparisons may be available based on MSA. County/place available for some areas.	comparable items to other youth surveys across the country, including Monitoring the Future, YRBS, and NOMS data collection for the SPF-SIG
Youth Risk Behavior Surveillance System (YRBSS)	<p>School response rate 77%</p> <p>Individual response rate 86%</p> <p>Overall response rate 66% (unsure of year on this)</p>	Extensive information available in 2004 report at YRBSS website.	1990	1991, then biennial (odd years)	2 year lag (until publicly available)	Items change from year to year based on input from sites and content review.	Gender, age, grade, race/ethnicity, urbanicity of school.	Nationwide sample. Chicago Sample available most years. IL sample available in 1993, 1995, and 2007. No sub-state reporting available beyond Chicago.	