

2012

HYS

WASHINGTON STATE HEALTHY YOUTH SURVEY

# Risk and Protective Factors for Youth Marijuana Use: Preliminary Findings

*Analysis from the 2012 HYS*

July 10, 2013



## Purpose

- Examine youth marijuana use prevalence and frequency
- Identify the most salient risk and protective factors of youth marijuana use and frequent use
- Provide recommendation for marijuana prevention strategies





## Past 30-Day Marijuana Use

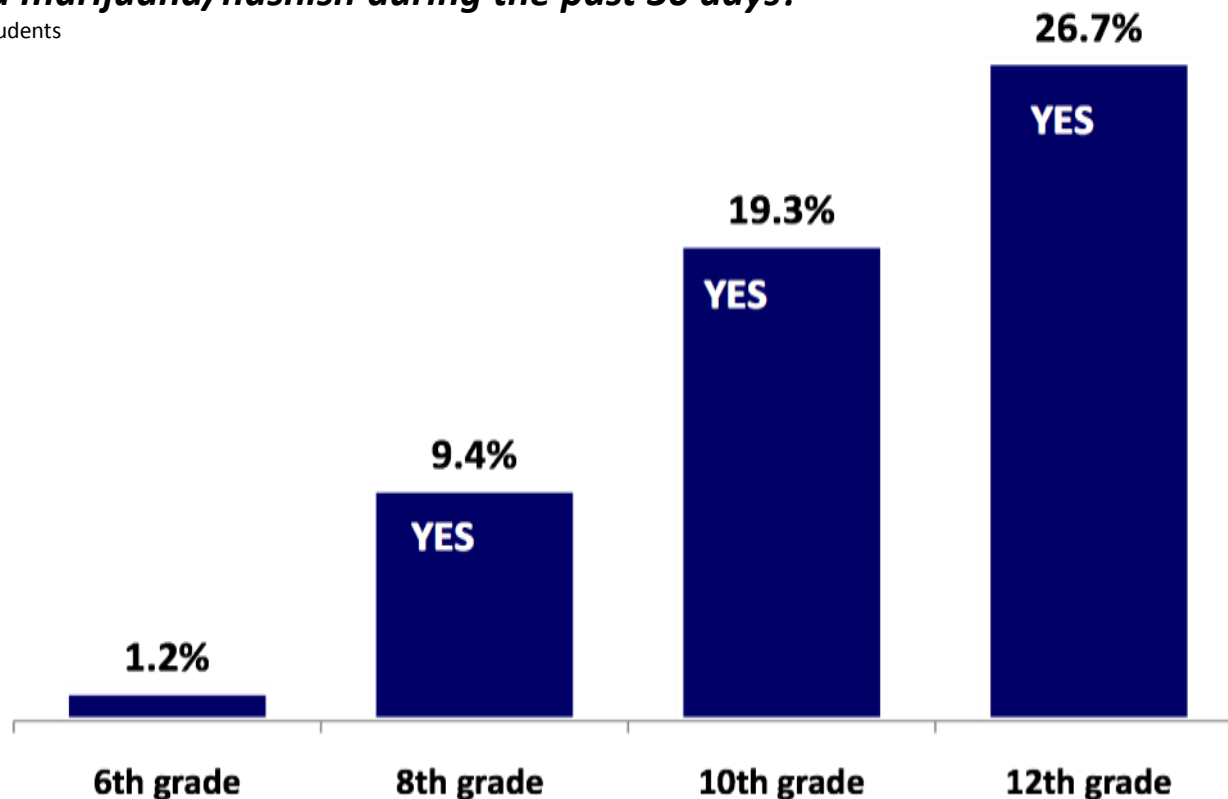
In 2012, one out of five Washington State 10th graders reported using marijuana in the past 30 days.



*Smoked marijuana/hashish during the past 30 days?*

Percent of students

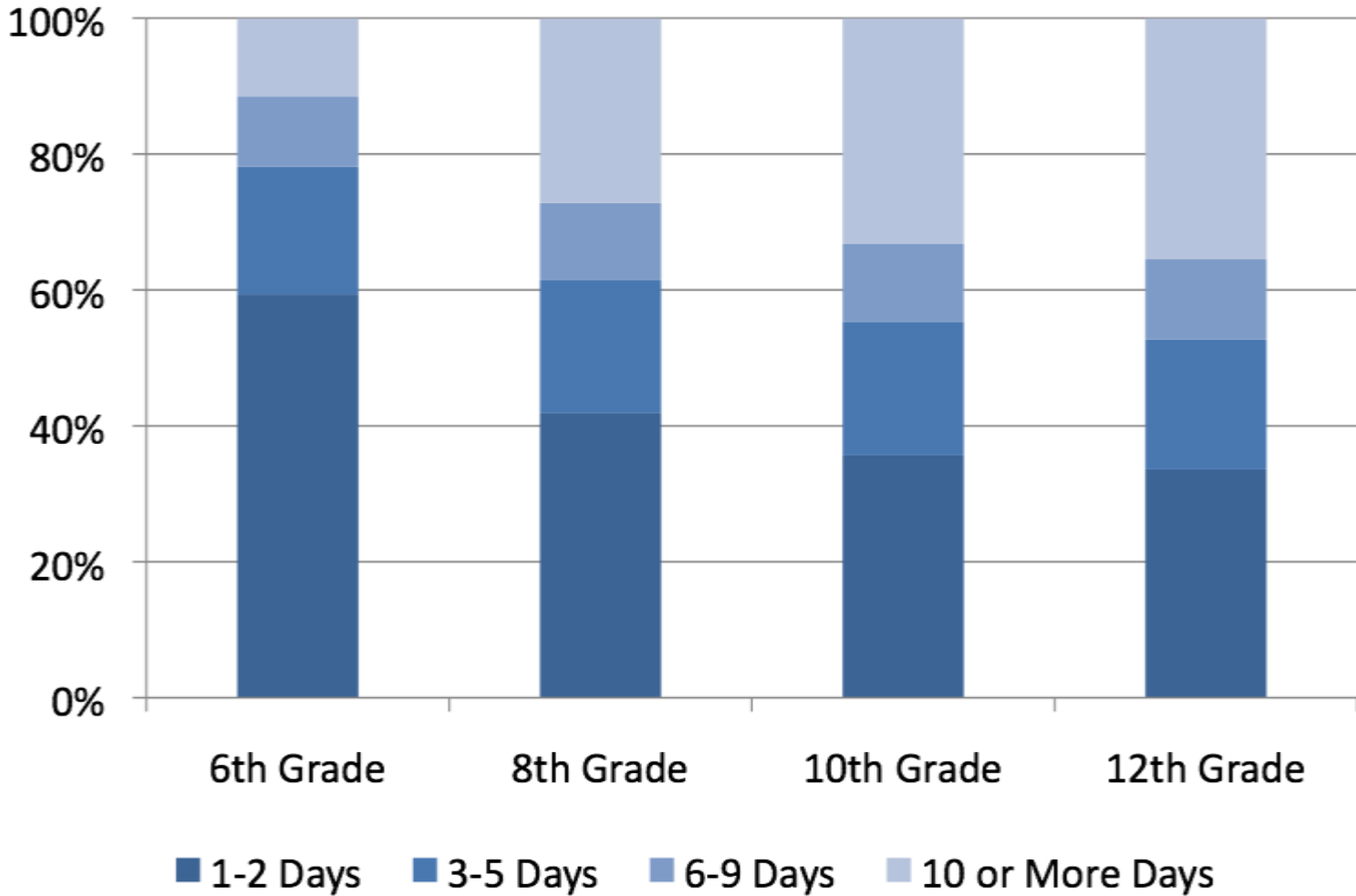
Year	10 <sup>th</sup> Grade Marijuana Use
2002	18.3%
2004	17.1%
2006	18.3%
2008	19.1%
2010	20.0%
2012	19.3%



SOURCE: Washington State Healthy Youth Survey, 2012



## Frequency of Marijuana Use In the Past Month



# Methodology – Logistic Regression

- Outcome variables
  - Any use in past 30 days
  - Frequent use in past 30 days (10 or more days)
- Risk and protective factors
  - Stage one: early developmental stage factors – family factors and academic failure
  - Stage two: all risk and protective factors – family, school, community, peer and individual
- Separate models for 6<sup>th</sup> (subset available on form C), 8<sup>th</sup>, and 10<sup>th</sup> graders



# Any Marijuana Use – Early Developmental Stage Risk/Protective Factors

Risk/Protective Factor Scales	6 <sup>th</sup> Grade			8 <sup>th</sup> Grade			10 <sup>th</sup> Grade		
	OR*	95% CI of OR*		OR	95% CI of OR		OR	95% CI of OR	
Poor family management				<b>2.8</b>	<b>2.1</b>	<b>3.8</b>	<b>2.8</b>	<b>2.2</b>	<b>3.5</b>
Parents attitudes favorable towards drug use				<b>5.0</b>	<b>3.8</b>	<b>6.6</b>	<b>4.1</b>	<b>3.3</b>	<b>5.1</b>
Opportunities for pro-social involvement (family)				0.8	0.6	1.3	0.8	0.7	1.1
Rewards for pro-social involvement (family)	<b>0.3</b>	<b>0.2</b>	<b>0.4</b>	<b>0.7</b>	<b>0.5</b>	<b>1.0</b>	0.9	0.7	1.1
Academic failure	1.3	0.9	2.1	<b>1.8</b>	<b>1.3</b>	<b>2.4</b>	<b>1.9</b>	<b>1.5</b>	<b>2.4</b>

**NOTES:** \*OR= Odds Ratio. The table shows the upper and lower bounds of the odd ratios.

Adjusted for race (white vs. non-white), ethnicity, parental education level (college vs. no college), and rural/urban distinctions for 8th and 10th graders.

Adjusted for race, ethnicity, and rural/urban distinction for 6th graders because parents' education was not asked on the 6th grade form.

Significant factor scales are highlighted.



## Any Marijuana Use – All Risk/Protective Factors

Risk/Protective Factor Scale	6 <sup>th</sup> Grade			8 <sup>th</sup> Grade			10 <sup>th</sup> Grade		
	OR*	95% CI of OR*		OR	95% CI of OR		OR	95% CI of OR	
<b>Community Factors</b>									
Laws and norms favorable to drug use	2.0	1.1	3.8	1.3	0.9	1.8	0.8	0.5	1.2
Perceived availability of drugs	4.1	2.1	8.0	1.9	1.2	2.9	1.4	1.1	1.8
<b>Family Factors</b>									
Poor family management				0.8	0.5	1.2	1.4	1.0	1.9
Parents attitudes favorable towards drug use				1.3	0.8	2.2	1.4	1.1	1.9
<b>Peer/Individual Factors</b>									
Early initiation of drugs				14.5	9.0	23.5	3.3	2.4	4.6
Favorable attitudes toward drug use	12.9	4.7	35.4	1.8	1.1	3.2	2.3	1.5	3.5
Intention to use drugs				1.4	0.8	2.4	2.6	2.0	3.4
Perceived risks of drug use	3.9	1.8	8.7	1.7	1.0	3.1	2.7	2.0	3.7
Friends' use of drugs				2.1	1.3	3.5	2.3	1.6	3.3
Interactions with antisocial peers				1.7	1.1	2.6	1.7	1.2	2.4
Social skills				0.6	0.4	0.9	0.6	0.5	0.9

**NOTES:**\*OR= Odds Ratio. The table shows the upper and lower bounds of the odd ratios.

Adjusted for race (white vs. non-white), ethnicity, parental education level (college vs. no college), and rural/urban distinctions for 8th and 10th graders.

Adjusted for race, ethnicity, and rural/urban distinction for 6th graders because parents' education was not asked on the 6th grade form.

Significant factor scales are highlighted.

**Not statistically significant and not shown:** Perceived availability of handguns; opportunities for pro-social involvement (family, community, and school domains); reward for pro-social involvement (family and school domains), academic failure, low commitment to school, early initiation of problem behavior, belief in oral order, interaction with pro-social peers.



# Frequent Use – Early Developmental Stage Risk/Protective Factors

Risk/Protective Factor Scales	8 <sup>th</sup> Grade			10 <sup>th</sup> Grade		
	OR*	95% Confidence Interval of OR*		Odds Ratio	95% Confidence Interval of OR	
Poor family management	<b>4.1</b>	<b>2.1</b>	<b>8.2</b>	<b>3.1</b>	<b>2.1</b>	<b>4.6</b>
Parents attitudes favorable towards drug use	<b>7.8</b>	<b>4.4</b>	<b>13.9</b>	<b>6.2</b>	<b>3.9</b>	<b>10.0</b>
Opportunities for pro-social involvement (family)	1.3	0.8	2.2	1.1	0.8	1.6
Rewards for pro-social involvement (family)	0.6	0.3	1.0	1.0	0.6	1.7
Academic failure	<b>2.0</b>	<b>1.3</b>	<b>3.1</b>	<b>2.3</b>	<b>1.6</b>	<b>3.2</b>

**NOTES:** \*OR= Odds Ratio. The table shows the upper and lower bounds of the odd ratios.

Adjusted for race (white vs. non-white), ethnicity, parental education level (college vs. no college), and rural/urban distinctions for 8th and 10th graders. Adjusted for race, ethnicity, and rural/urban distinction for 6th graders because parents' education was not asked on the 6th grade form. Significant factor scales are highlighted.





## Frequent Marijuana Use – All Risk/Protective Factors

Risk/Protective Factor	8 <sup>th</sup> Grade			10 <sup>th</sup> Grade		
	OR*	95% Confidence Interval of OR*		Odds Ratio	95% Confidence Interval of OR	
<b>Community Factors</b>						
Laws and norms favorable to drug use	2.2	1.3	3.9	1.2	0.7	2.1
Perceived availability of drugs	1.8	1.0	3.5	2.0	1.4	2.7
<b>Family Factors</b>						
Parents attitudes favorable towards drug use	1.8	0.9	3.6	1.9	1.1	3.3
Opportunities for pro-social involvement	2.1	1.1	4.2	1.9	1.2	3.1
<b>Peer/Individual Factors</b>						
Early initiation of drugs	6.0	2.0	17.9	3.7	1.8	7.5
Early initiation of problem behavior	2.1	1.1	4.2	1.2	0.7	2.1
Favorable attitudes toward drug use	5.3	1.2	24.1	1.5	0.7	3.3
Perceived risks of use	4.4	1.3	14.5	4.5	2.1	9.7
Friends' use of drugs	4.5	1.6	12.6	3.9	2.3	6.8
Interactions with antisocial peers	1.6	0.6	4.1	2.4	1.2	4.7
Social skills	0.3	0.1	0.9	0.6	0.3	1.3
Belief in the moral order	0.8	0.4	1.8	0.6	0.4	0.9

**NOTES:** \*OR= Odds Ratio. The table shows the upper and lower bounds of the odd ratios.

Adjusted for race (white vs. non-white), ethnicity, parental education level (college vs. no college), and rural/urban distinctions for 8th and 10th graders.

Adjusted for race, ethnicity, and rural/urban distinction for 6th graders because parents' education was not asked on the 6th grade form.

Significant factor scales are highlighted.

**Not statistically significant and not shown:** Perceived availability of handguns; opportunities for pro-social involvement (community and school domains); poor family management; reward for pro-social involvement (family and school domains), academic failure, low commitment to school, belief in oral order.

**Not included in the model:** Intention to use drugs.



## Findings – Early Developmental Factors

- Early developmental stage risk/protective factors have a stronger impact on marijuana use when considered independent of the peer/individual later stage risk factors
- Salient early developmental state factors are
  - Poor family management
  - Parental attitudes favorable to drug use
  - Academic failure



## Findings – All Risk/Protective Factors

When all risk and protective factors are considered:

- Factors in the peer/individual domain are the most salient
- None of the school domain factors were found to be significantly correlated with use or frequent use
- Community domains: “perceived availability of drugs”, and “law and norms favorable to drug use” (6<sup>th</sup> and 8<sup>th</sup> graders) are significant



## Recommendations

- Prevention programs targeting significant early developmental stage factors have the potential to reduce use and frequent use of marijuana
  - Poor family management
  - Parental attitudes favorable to drug use
  - Academic failure
- Many peer and individual risk/protective factors are important, but some are more malleable than others
  - Perceived risks of drug use
  - Favorable attitudes towards drug use
- In the community domain, focus on significant risk/protective factors
  - Perceived availability of drugs
  - Laws and norms favorable to drug use (for younger age group)

