

# Academic Performance and Student Health Risk

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# Where to find the report

- **MIYHS website**
  - <https://data.mainepublichealth.gov/miyhs/>

# Overview

- **Data & Methods**
- **How to interpret the results**
- **Overviewing the results**
- **Using the data for your prevention efforts**
- **What's in development**

# Purpose

- **Directly targeting key MIYHS stakeholders and their interests**
  - **Stakeholders: Teachers, Principals, Superintendents, School Boards**
  - **Interest: Academics**
- **Provide the same product available in other states participating in the YRBS**
  - **Report consistent with findings on a national level**

# Data

- **2013 MIYHS High School module**
  - 4 versions of the survey
  - 1 version of the survey has the question:
    - During the past 12 months, how would you describe your grades in school?
  - State level of analysis only
  - Limits the questions we can analyze

# Method

- **Logistic regression performed with STATA**
  - Measures the probability of a binary outcome occurring
- **Outcome: health behaviors/attitudes/perception of risk**
  - Questions on same version as Grades Mostly Earned
- **Controls:**
  - Sex, Race/Ethnicity, Grade in School
- **Explanatory Variable: Grades Mostly Earned**
  - Four Categories: Mostly A's, Mostly B's, Mostly C's, Mostly D's/F's

# Significant Association

- **Wald test**
  - Grades mostly earned + controls explains more variance in answer of interest than just the controls
  - 1% threshold
- **Significance means: The prevalence of a health outcome varies by grades mostly earned.**
- **Only means an association, not a **cause**.**

# Report format

- **Percentage of high school students engaging in a health behavior by grades mostly earned.**
  - **Prevalence by grades mostly earned computed using the average effect on the outcome for all controls**



# Caution

- **This report does not imply causality**
  - Other factors not included
  - Data collection method
  - What affects what

# Caution

- **Emphasize association between health and grades:**
  - Linkage, connection
  - Students with lower grades more likely to smoke pot than students with higher grades
  - Students with higher grades are less likely to know adults who have used marijuana, crack, cocaine, or other drugs than st
  
- **Avoid anything that implies *causation*.**
  - *effect/affect/impact*
  - *Earning higher grades leads to lower rates of alcohol use.*

# Caution

- Significant association signify that a prevalence for health behavior varies by academic performance.
- Does it also mean that odds for higher academic performance varies by that health behavior?
  - Likely, but not measured in this report

# How behavior varies by grades\*

	<b>Overall</b>	<b>Mostly A's</b>	<b>Mostly B's</b>	<b>Mostly C's</b>	<b>Mostly D's/F's</b>
Students who had a drink in the past 30 days (hn80=1)	26.0% (24.9% - 27.1%)	18.4% (16.8%- 20.0%)	23.5% (21.4%- 25.5%)	34.2% (30.8%- 37.5%)	48.2% (41.6%- 54.8%)

\*Included in released report

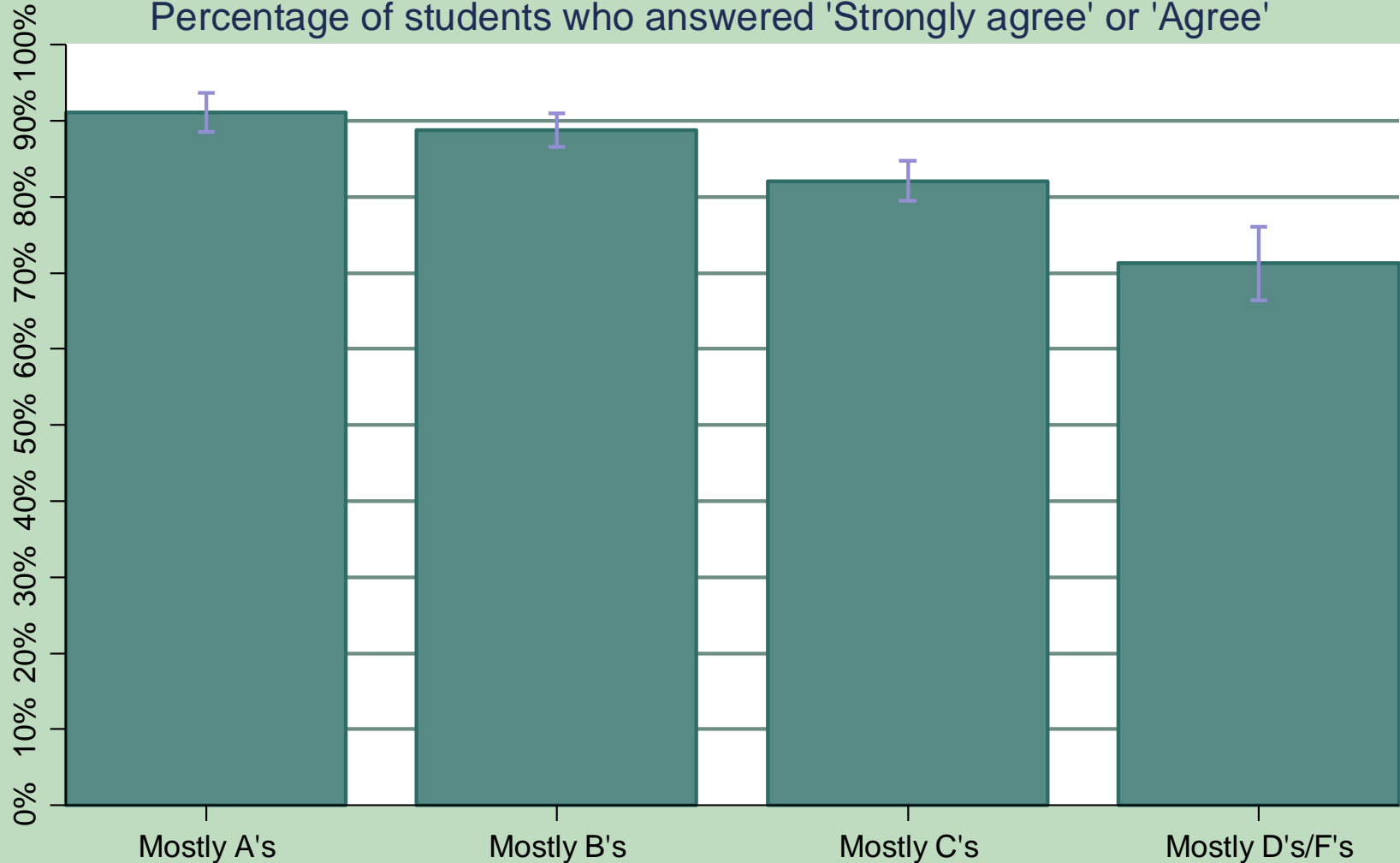
# How grades vary by behavior\*

<b>Grades Mostly Earned</b>	<b>Overall Distribution</b>	<b>Students who had a drink in the past 30 days (hn80=1)</b>	<b>Students who did not have a drink in the past 30 days (hn80=2)</b>
Mostly A's	35.7% (32.8%-38.69)	25.2% (21.9%-28.6%)	40.1% (37.2%-43.1%)
Mostly B's	41.9% (40.1%-43.6%)	44.6% (42.8%-46.5%)	42.0% (40.1%-43.9%)
Mostly C's	16.7% (15.0%-18.6%)	22.4% (19.9%-25.0%)	13.8% (12.3%-15.3%)
Mostly D's/F's	5.7% (4.8%-6.7%)	7.7% (6.1%-9.3%)	4.1% (3.4%-4.7%)

\*not included in released report

(hn33) Do you agree or disagree with the following statement? 'I feel safe at my school.'

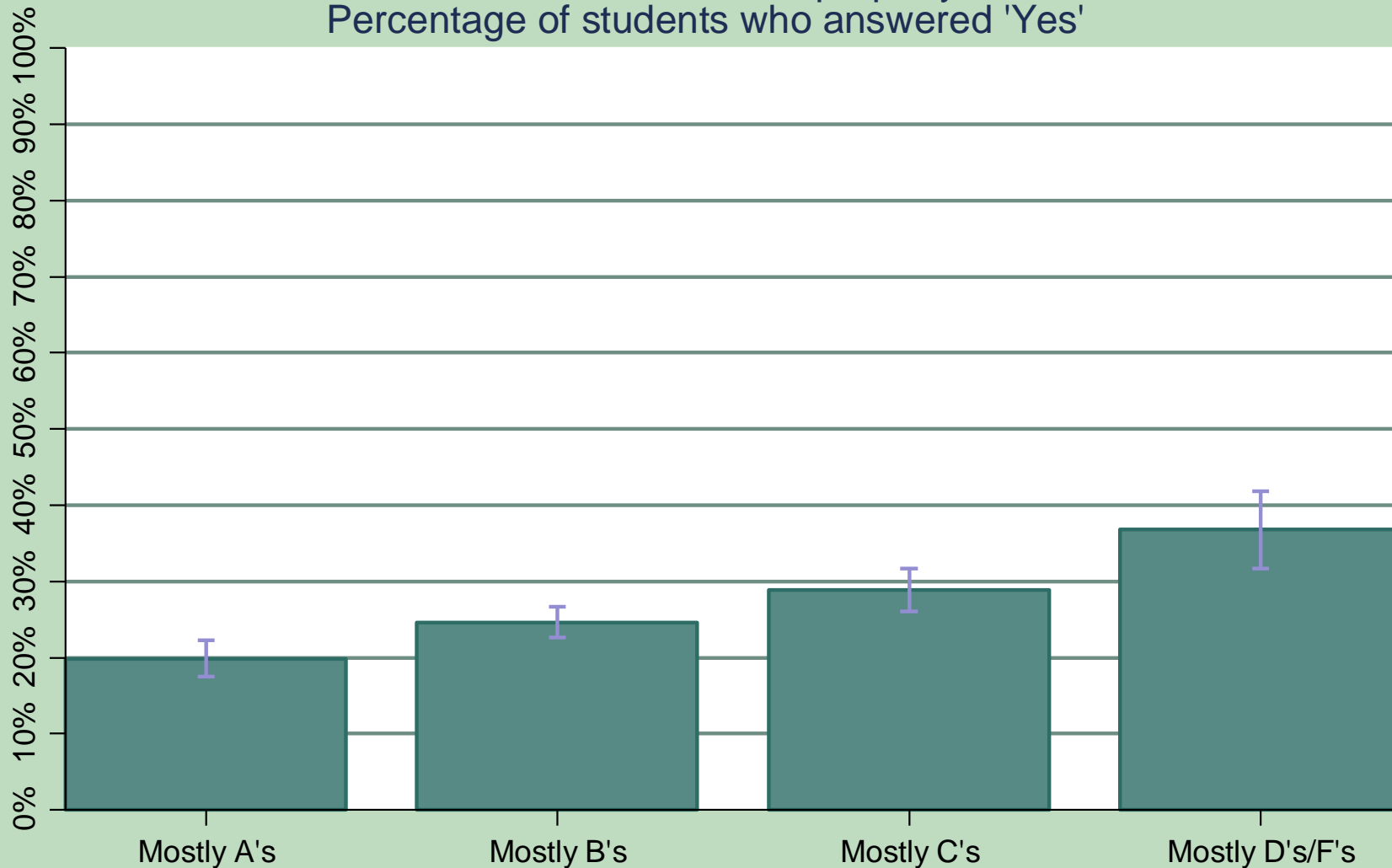
Percentage of students who answered 'Strongly agree' or 'Agree'



2013 Maine Integrated Youth Health Survey

High School Students

(hn34) During the past 12 months, have you ever been bullied on school property?  
Percentage of students who answered 'Yes'

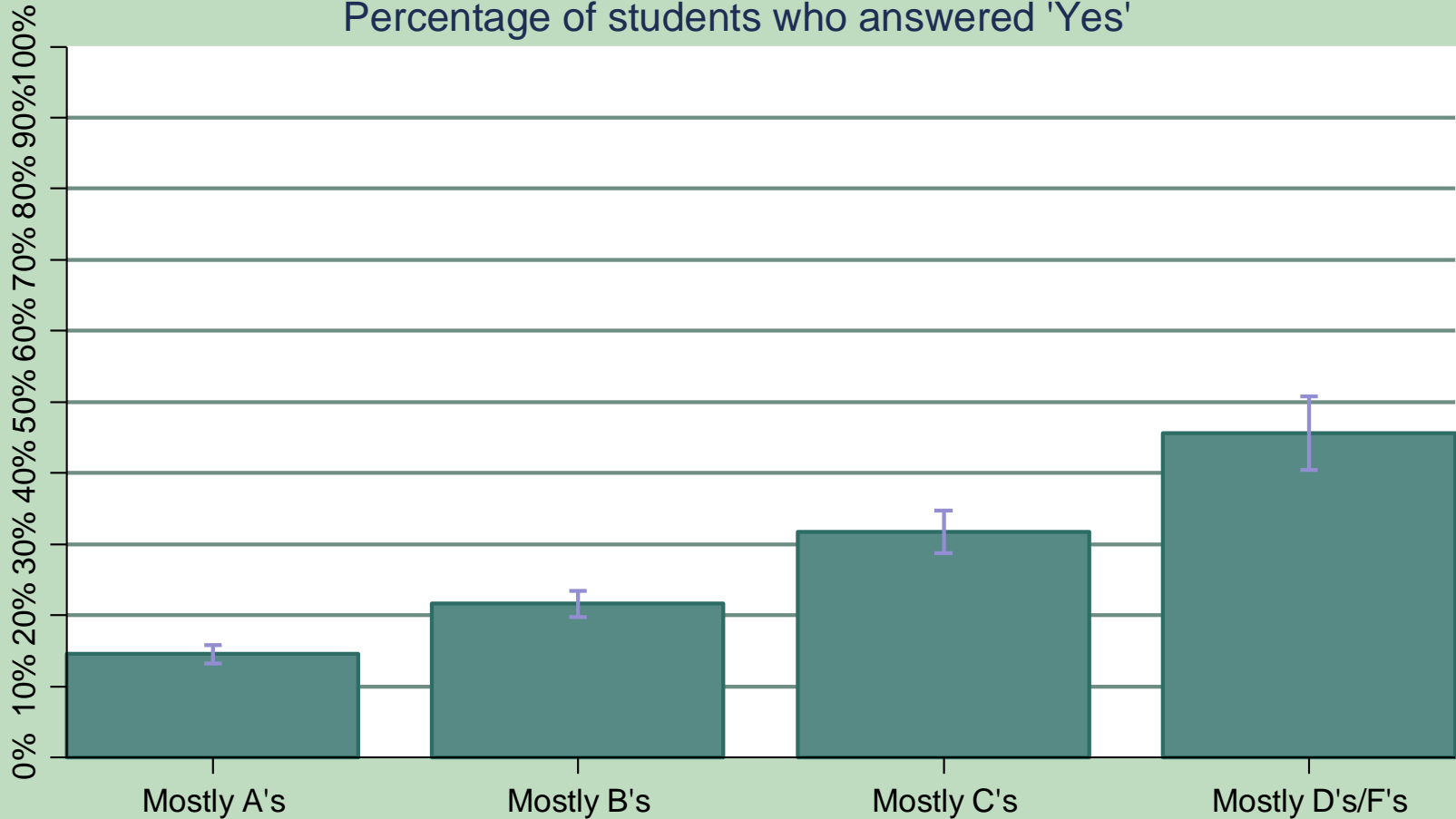


2013 Maine Integrated Youth Health Survey

High School Students

(hn42) During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

Percentage of students who answered 'Yes'



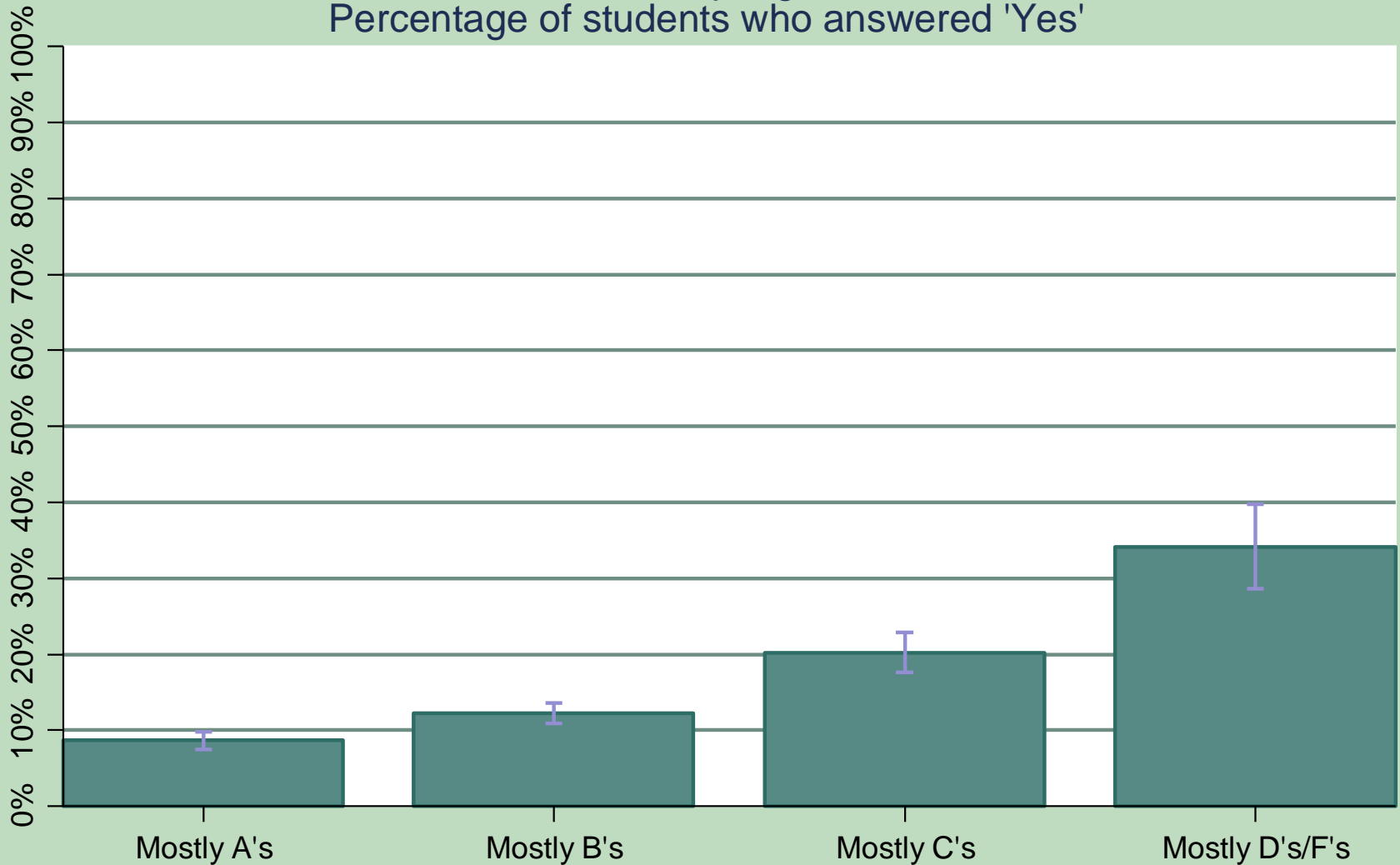
2013 Maine Integrated Youth Health Survey

High School Students



(hn44) During the past 12 months, did you ever seriously consider attempting suicide?

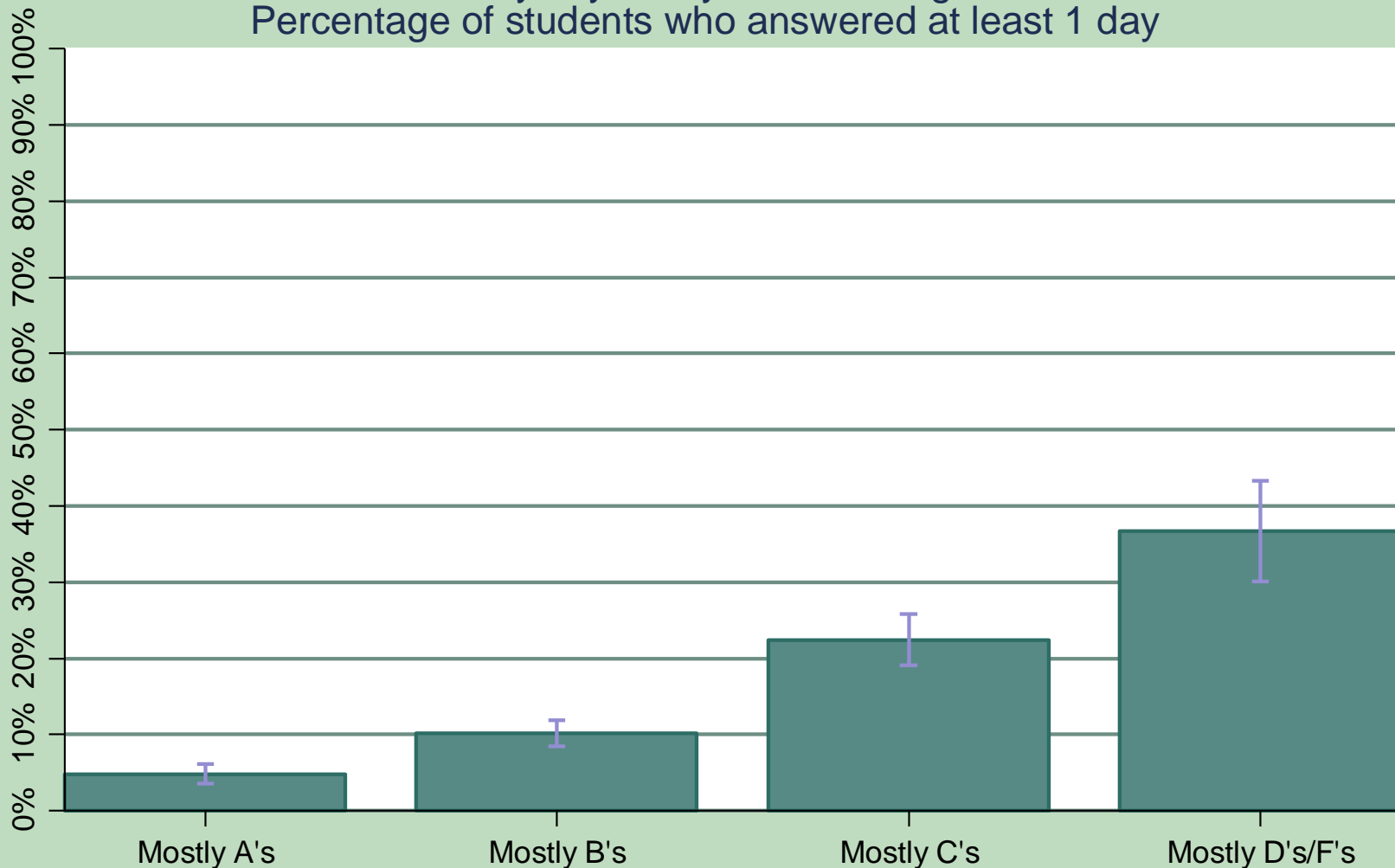
Percentage of students who answered 'Yes'



2013 Maine Integrated Youth Health Survey

High School Students

(hn48) During the past 30 days,  
on how many days did you smoke cigarettes?  
Percentage of students who answered at least 1 day

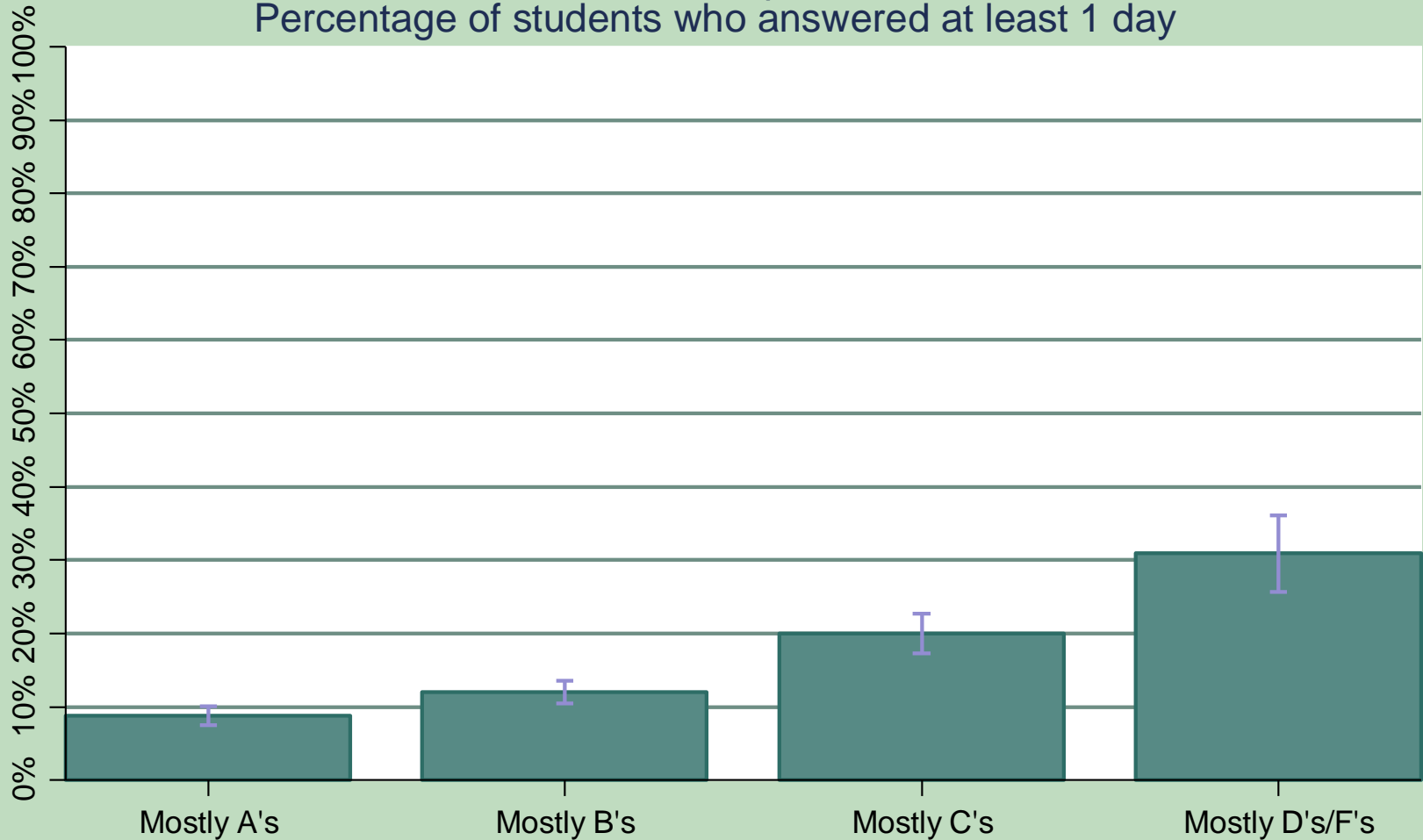


2013 Maine Integrated Youth Health Survey

High School Students

(hn81a) During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

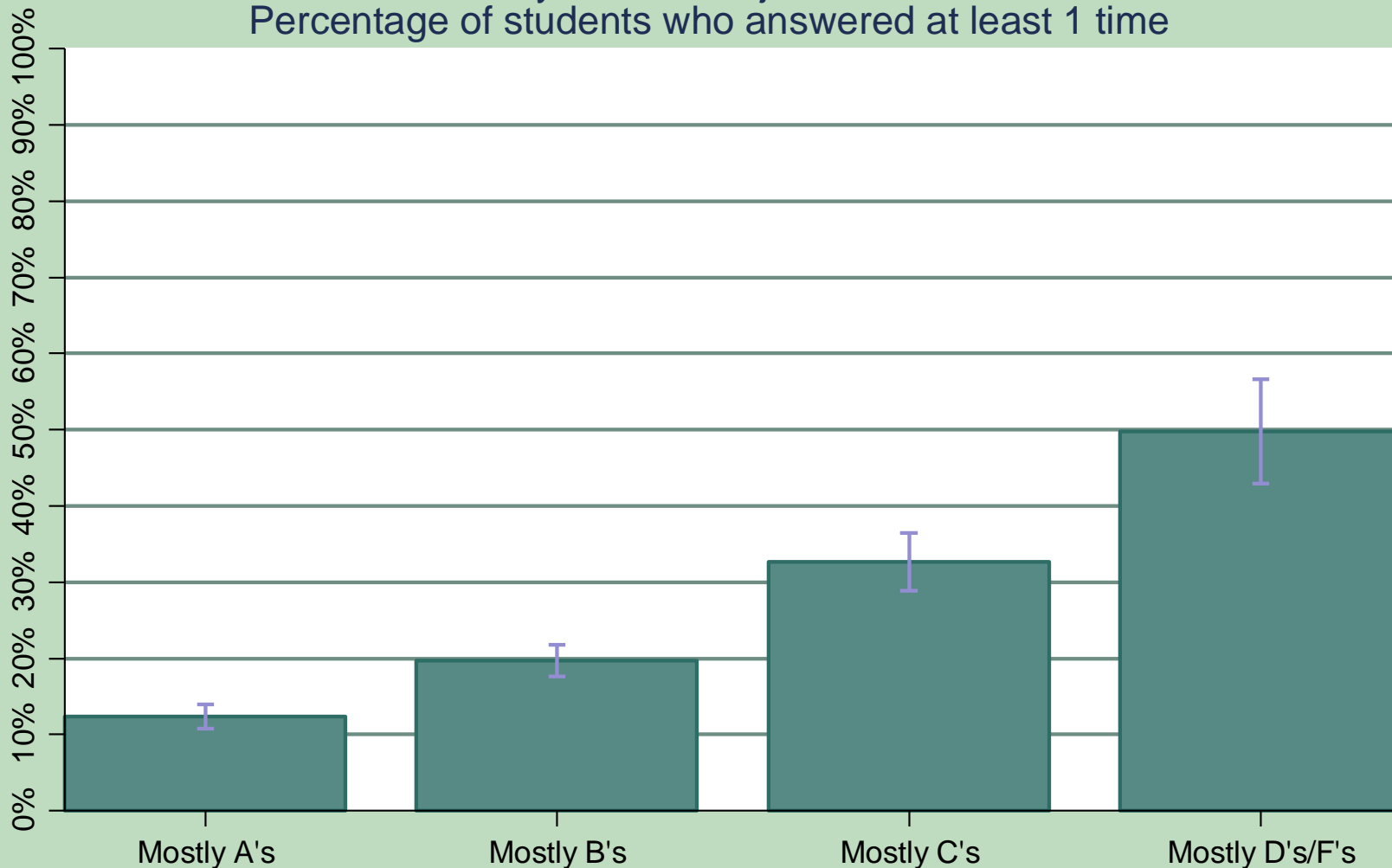
Percentage of students who answered at least 1 day



2013 Maine Integrated Youth Health Survey  
High School Students

(hn100) During the past 30 days, how many times did you use marijuana?

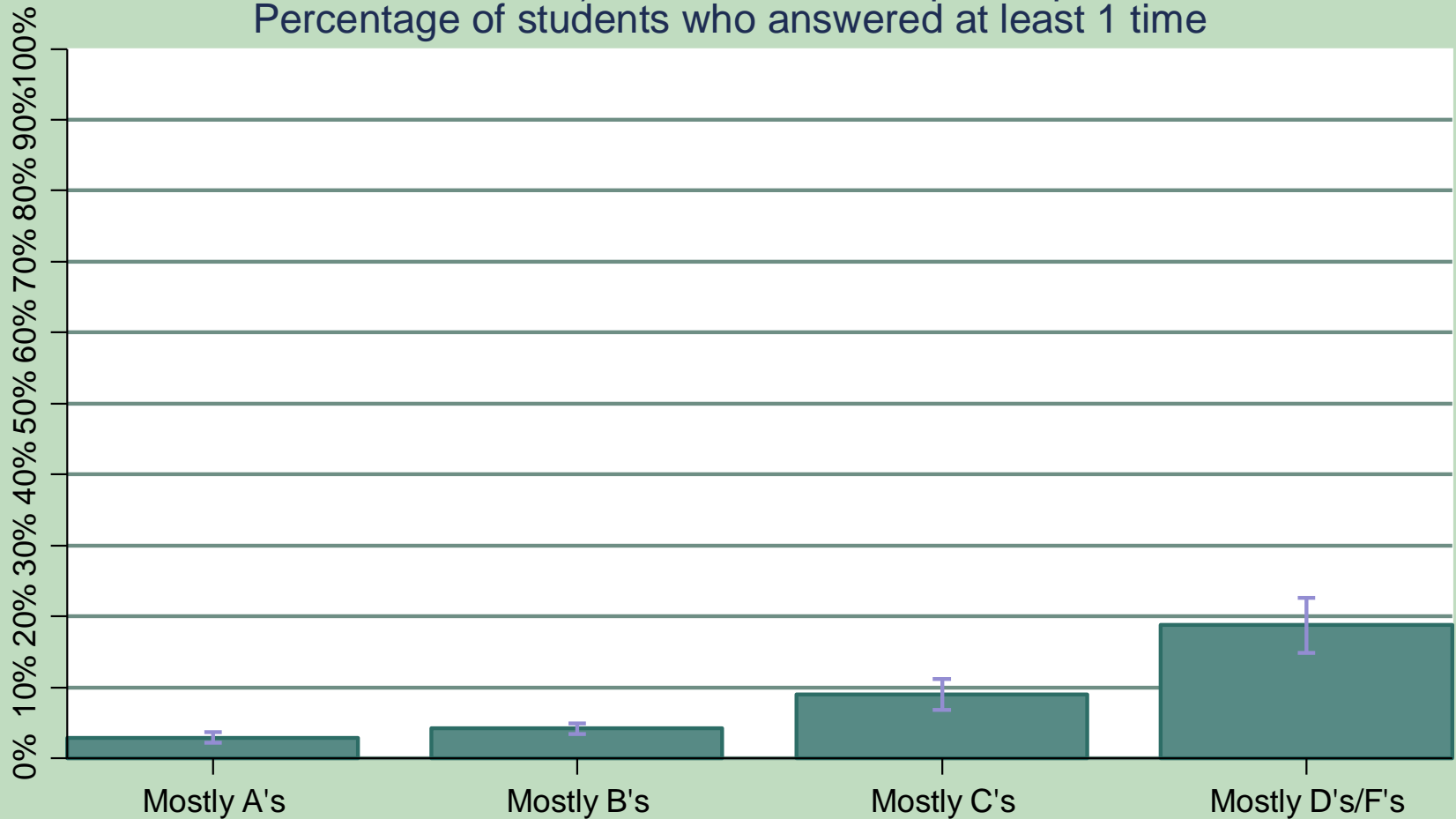
Percentage of students who answered at least 1 time



2013 Maine Integrated Youth Health Survey

High School Students

(hn113a) During the past 30 days, how many times did you take a prescription drug (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?  
Percentage of students who answered at least 1 time



2013 Maine Integrated Youth Health Survey  
High School Students

# Overall Findings

- Consistent evidence that an association exists
- Students with better grades are less likely to engage in risky health behaviors
- Students with poorer academic performance are more likely to be at risk for a range of behaviors
- Significant associations also found:
  - perceptions of risk
  - perceptions of peer, parental, and neighborhood disapproval
  - Protective factors/assets

# So What

- **The intent of this report is to target the interests of school and school district officials**
- **They may have varying understanding of the connection between student health and academic performance**
- **Conflicting Priorities**

- **Discuss the link between academics and health.**
- **With this report, you have the research on hand to support this claim**



# Future directions

- **Executive summary**
- **Fact sheets: Specific topic areas**
- **More information on MIYHS recruitment to come later this summer.**

# Resources

- **U.S. CDC**
  - [http://www.cdc.gov/healthyyouth/health\\_and\\_academics/index.htm](http://www.cdc.gov/healthyyouth/health_and_academics/index.htm)
- **National Association of Chronic Disease Directors**
  - <http://www.chronicdisease.org/?SchoolHealth>