

Metrowest Adolescent Health Survey

Survey Administered November 2018

Date of Presentation: November 18, 2019

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Special Thanks to:

- MetroWest Health Foundation
- The Administration of NPS
- The middle and high school students who participated by taking the survey
- Education Development Center (EDC)

“How do we know students are telling the truth?” (Validity and Reliability)

- Research shows that young people respond truthfully to surveys when:
 - Participation is **voluntary**
 - They perceive the survey is **important**
 - They feel measures have been taken to preserve **privacy** and ensure **anonymity**.

These assurances were built into the common survey protocol.

Validity

Do students respond truthfully?

Research on the validity and reliability of self-report surveys among school-based populations suggest that surveys are reliable methods of collecting data from young people. In fact, research on the national YRBSS indicates young people respond truthfully when:

- Participation is voluntary;
- students perceive the survey as important; and
- students feel that measures have been taken to preserve their privacy and ensure anonymity.

This survey meets these criteria.

Appeals to youth:

We value your voice

We will use this to help other young people

Background and Methodology

Checks are conducted to test for the reasonableness of responses and for the consistency of responses across related items across the survey data and towns.

There is a two tier system and a person who reviews the surveys for weird patterns and outlier answers.

The validity of the survey is further bolstered by using a questionnaire based largely upon the CDC Youth Risk Behavior Surveillance System. The YRBSS is a standardized instrument developed by the CDC in collaboration with other national and local health education agencies. A number of published articles address the validity and test-retest reliability of the instrument.

What do we do post-survey to increase validity and reliability?

- All surveys are visually reviewed for implausible response options.
 - Very small numbers were removed from analysis (less than 2%)
- The Education Development Center (EDC) performs consistency checks of the data

Survey Participants

- This was Natick's seventh time administering the survey
- (2006, 2008, 2010, 2012, 2014 and 2016, 2018)
- 1,107 Students in Grades 6-8
- 1,372 Students in Grades 9-12

Definitions

“current use” - past 30 days

“lifetime use” – used once or more, anytime in life, but does not include minimal intake for religious purposes

X% of students indicated they felt they had been harassed due to race or appearance, or disability or gender identity or sexual identity, the number reflects ALL students. We can do some cross-tabs for gender, but have to engage EDC to do the deeper dive in certain areas.

Grade 6

- Analysis created at a later date and was not vetted with our town group
- Framing slides in this presentation contain 6-8 report.
- Because not all towns include a lot of data for grade 6 or don't include at all, not included with grades 7-8
- Grade 6 is not always within middle schools
- Different configurations (elementary etc.)
- Not as deep of a data set over time
- Students are very young and risks have been historically low
- Different, age-appropriate question set.

--Source, *Answers from MWHCF Office phone chats*

Framing MetroWest (MW) Data--MS

- Online use in MW and Natick has tripled since 2016
- Youth smoking down, vaping up
- Alcohol up slightly, marijuana use up for MW but stable for Natick
- Peer violence and weapons decreasing
- Bullying declined steadily until 2016, now up 5% in MW and in Natick
- Greater bullying surge among females in MW and Natick
- Cyberbullying overall stable, increased with females
- MS stress stable in Natick, rising considerably in MW, mostly due to rise in female stress
- Depressive symptoms reporting down, but reporting of self-injury and suicide up in both MS and Natick

Source, *Highlights from MetroWest Adolescent Health Survey, Spring 2019, EDC.*

Framing MetroWest (MW) Data--HS

- Online use in MW more than doubled and Natick is in keeping with MW
- Smoking decreased, vaping increased
- Alcohol use declined substantially since 2006 from lifetime use 66-48% and current use, 42-27% (MW and Natick similar)
- Marijuana use in MW and Natick increased from 23-29% (Trend Watch)
- Misuse of prescription drugs decreased from 13-5% in MW and Natick
- Texting while driving (33%) stable
- Weapons and fighting declined
- Bullying same as MS but with no gender difference
- Cyberbullying decreased with no gender difference
- Stress and anxiety leveled out since 2016 after steep rise
- Lower reports of mental health problems on recent surveys
- Declines in both depressive symptoms, suicide and self-injury, but with a rise in female reports in all areas—MW region is different—with higher rates across the board
- School attachment trends have no discernible pattern

Source, *Highlights from MetroWest Adolescent Health Survey, Spring 2019, EDC.*

Natick Middle Schools (Grades 7-8)
2006-2018 Trends in Key Indicators
MetroWest Adolescent Health Survey

	Year of Survey (%)						
	2006 (508)	2008 (629)	2010 (657)	2012 (696)	2014 (744)	2016 (735)	2018 (722)
SUBSTANCE USE							
Lifetime cigarette smoking	6.2	4.3	5.4	6.4	3.7	3.3	3.9
Current cigarette smoking (past 30 days)	3.0	1.8	2.5	1.9	1.5	1.4	1.1
Lifetime electronic vapor product use*	—	—	—	—	5.9	4.1	8.2
Current electronic vapor product use (past 30 days)*	—	—	—	—	2.9	1.1	4.6
Lifetime alcohol use	16.4	13.6	13.2	10.4	11.0	10.0	13.0
Current alcohol use (past 30 days)	6.6	5.6	6.2	4.1	4.5	3.9	4.3
Binge drinking (past 30 days) [†]	2.4	1.9	2.2	0.7	1.1	1.6	1.0
Lifetime marijuana use	2.2	3.4	3.5	4.4	2.8	2.6	2.8
Current marijuana use (past 30 days)	1.8	2.9	2.3	2.6	1.8	1.1	1.6
Lifetime inhalant use	6.0	4.8	7.3	3.8	3.3	4.6	5.0
VIOLENCE							
Physical fighting (lifetime)	37.1	42.9	39.6	32.3	36.3	32.6	29.7
Physical fighting on school property (lifetime)	17.3	14.2	12.7	7.4	8.9	8.5	9.9
Carried a weapon (lifetime)	17.5	12.7	14.7	16.0	16.8	17.5	15.4
Carried a weapon on school property (lifetime)	2.4	2.4	1.2	0.9	1.6	1.4	1.0
BULLYING VICTIMIZATION							
Bullying victim (past 12 months)	42.9	44.2	39.5	31.7	28.2	22.7	28.7
Bullying victim on school property (past 12 months)	39.1	39.7	33.7	25.8	23.3	17.6	24.0
Cyberbullying victim (past 12 months)	13.6	12.8	15.3	14.0	17.0	16.4	17.1
MENTAL HEALTH							
Life "very" stressful (past 30 days)	12.5	14.6	12.5	13.5	19.5	18.4	19.9
Depressive symptoms (past 12 months)	13.0	14.4	12.0	13.1	17.0	9.1	12.6
Self-injury (past 12 months)	6.5	7.4	7.3	8.0	9.4	7.0	9.5
Considered suicide (lifetime)	8.5	8.8	9.6	9.9	12.4	10.3	12.4
Attempted suicide (lifetime)	1.6	2.6	1.8	1.9	4.0	3.3	3.9
PHYSICAL ACTIVITY AND BODY WEIGHT							
Exercised for ≥20 minutes on 3 or more days/week	83.5	81.1	77.6	82.1	83.6	84.8	83.9
Overweight or obese [‡]	21.6	20.6	22.1	17.2	18.3	17.4	17.0

* Includes electronic cigarettes (e-cigarettes) like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods

† From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students. Since 2016, binge drinking has been defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

‡ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

Natick High School (Grades 9-12)
2006-2018 Trends in Key Indicators
MetroWest Adolescent Health Survey

	Year of Survey (%)						
	2006 (1,083)	2008 (1,120)	2010 (1,114)	2012 (1,180)	2014 (1,292)	2016 (1,278)	2018 (1,372)
SUBSTANCE USE							
Lifetime cigarette smoking	34.4	29.7	22.7	16.6	14.6	8.8	10.1
Current cigarette smoking (past 30 days)	13.9	9.9	12.1	6.4	5.9	2.7	3.8
Lifetime electronic vapor product use*	—	—	—	—	26.4	19.3	36.4
Current electronic vapor product use (past 30 days)*	—	—	—	—	13.3	6.1	24.7
Lifetime alcohol use	66.0	63.1	55.7	50.8	52.4	47.5	47.5
Current alcohol use (past 30 days)	41.5	40.1	36.9	33.0	33.4	26.7	27.4
Binge drinking (past 30 days) [†]	24.2	21.1	21.8	18.5	16.2	11.3	14.7
Rode with driver who had been drinking (past 30 days)	25.7	22.0	24.6	20.9	16.8	13.4	12.6
Lifetime marijuana use	34.5	32.3	35.0	27.4	30.3	23.2	29.4
Current marijuana use (past 30 days)	22.0	21.0	26.5	20.0	21.3	17.0	20.4
Lifetime prescription drug misuse [‡]	12.8	8.4	8.1	7.1	6.3	4.8	4.6
VIOLENCE							
Physical fighting (past 12 months)	24.3	20.7	19.6	15.2	13.5	10.6	11.8
Physical fighting on school property (past 12 months)	10.1	8.3	7.4	5.4	3.4	1.9	3.0
Carried a weapon (past 30 days)	8.1	6.0	6.1	6.6	6.9	5.3	5.3
Carried a weapon on school property (past 30 days)	4.4	3.3	2.3	2.2	2.1	1.3	1.7
BULLYING VICTIMIZATION							
Bullying victim (past 12 months)	30.2	28.7	30.9	28.5	22.0	17.0	19.2
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Cyberbullying victim (past 12 months)	17.6	14.9	17.4	18.8	18.5	16.9	16.0
MENTAL HEALTH							
Life "very" stressful (past 30 days)	29.0	28.2	27.3	31.6	35.2	35.8	35.7
Depressive symptoms (past 12 months)	21.9	19.2	17.0	17.7	20.6	17.6	15.8
Self-injury (past 12 months)	15.1	12.6	11.5	13.7	15.7	12.0	10.8
Considered suicide (past 12 months)	9.9	8.7	8.3	11.3	14.1	11.7	10.0
Attempted suicide (past 12 months)	5.0	4.1	2.4	3.3	5.0	2.7	2.5
SEXUAL BEHAVIOR							
Lifetime sexual intercourse	32.9	29.1	27.4	21.7	19.9	14.4	16.4
Currently sexually active (past 3 months)	25.7	22.0	20.8	17.9	15.9	11.7	13.1
Condom use at last intercourse [§]	63.1	66.4	71.0	67.3	64.5	67.6	73.4
PHYSICAL ACTIVITY AND BODY WEIGHT							
Exercised for ≥60 minutes on 5 or more days/week	38.4	37.0	46.7	49.4	48.0	46.6	49.3
Overweight or obese**	22.4	21.3	20.0	18.6	18.9	17.5	19.5

* Includes electronic cigarettes (e-cigarettes) like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods

† From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students. Since 2016, binge drinking has been defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

‡ Without a doctor's prescription

§ Among currently sexually active youth

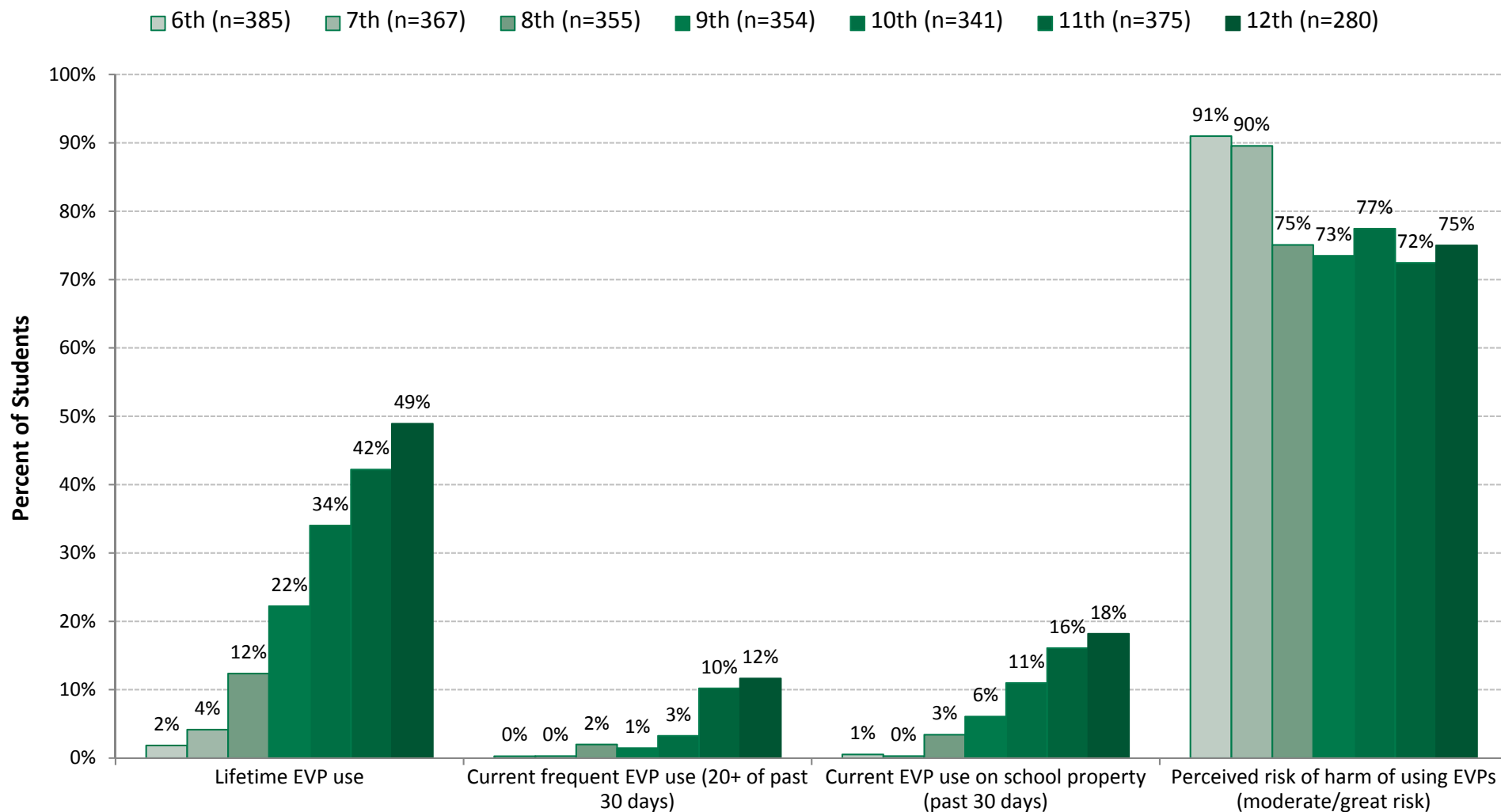
**Students who were ≥85th percentile for body mass index by age and gender, based on reference data

Vaping

Vaping / E cigarette by Grade, 2018

Natick Students (Grades 6-12)

MetroWest Adolescent Health Survey

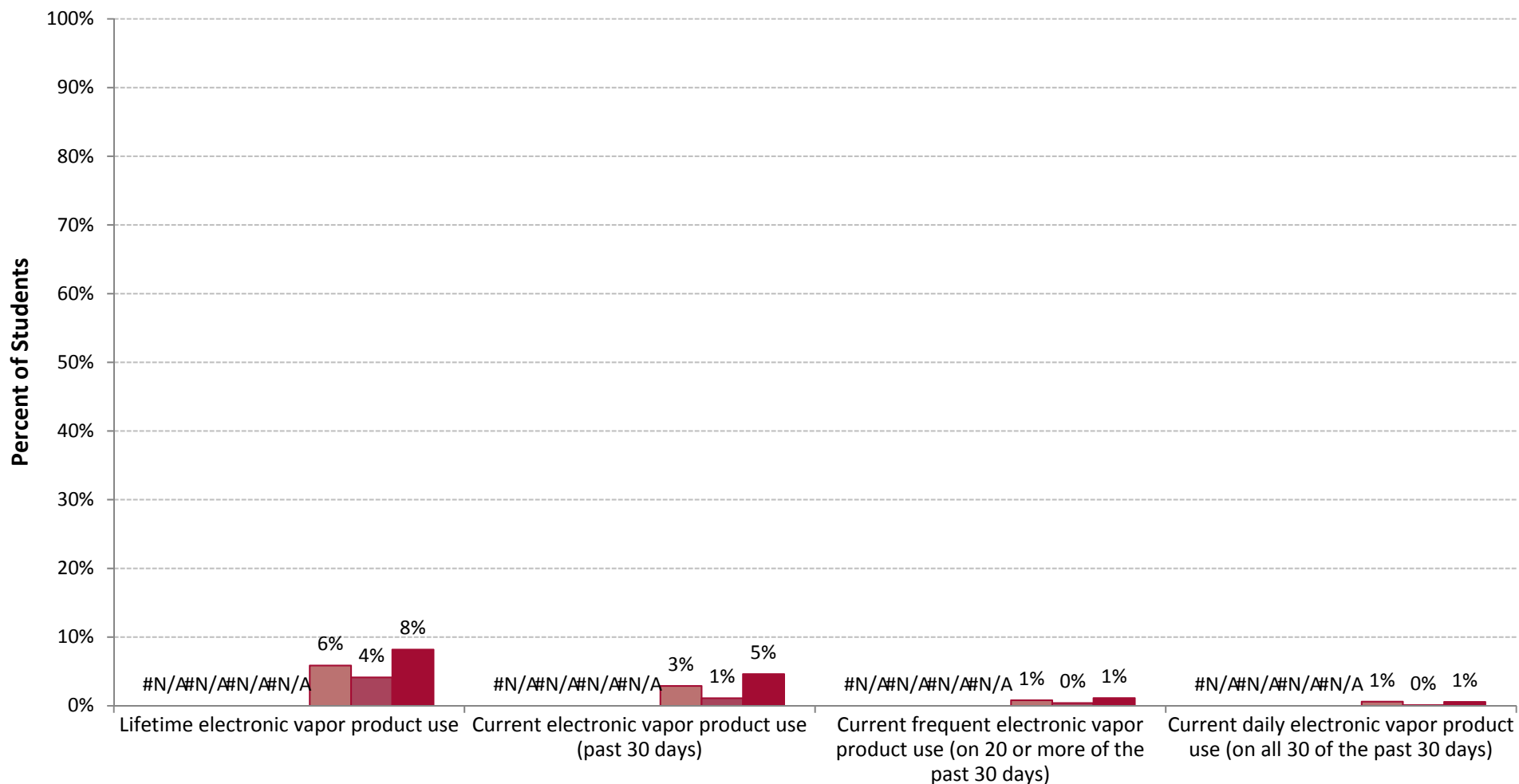


Trends in Vaping / E cigarette 2006-2018

Natick Middle School Students (Grades 7-8)

MetroWest Adolescent Health Survey

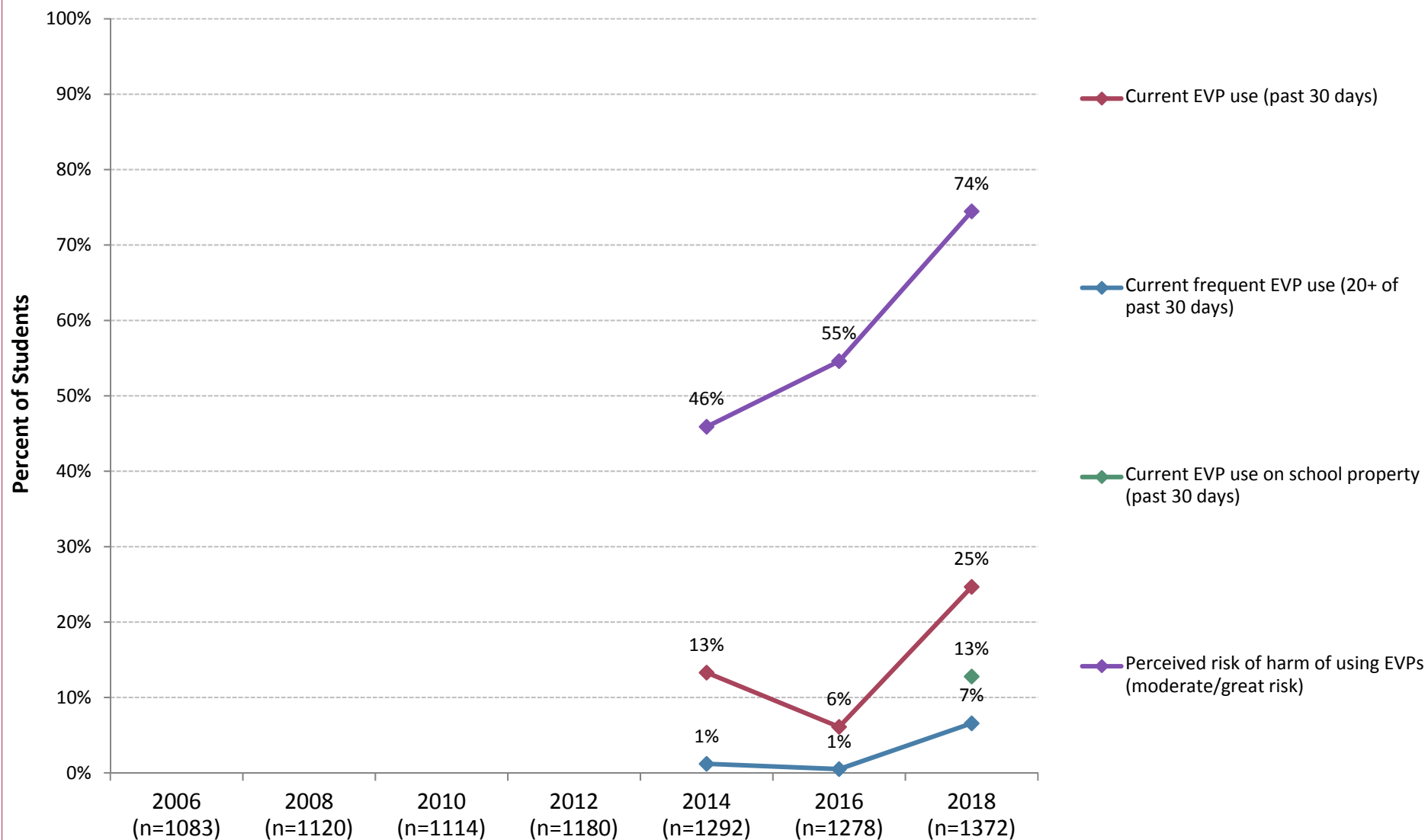
□ 2006 (n=508) □ 2008 (n=629) □ 2010 (n=657) □ 2012 (n=696) □ 2014 (n=744) □ 2016 (n=735) ■ 2018 (n=722)



Trends in Vaping / E cigarette , 2006-2018

Natick High School (Grades 9-12)

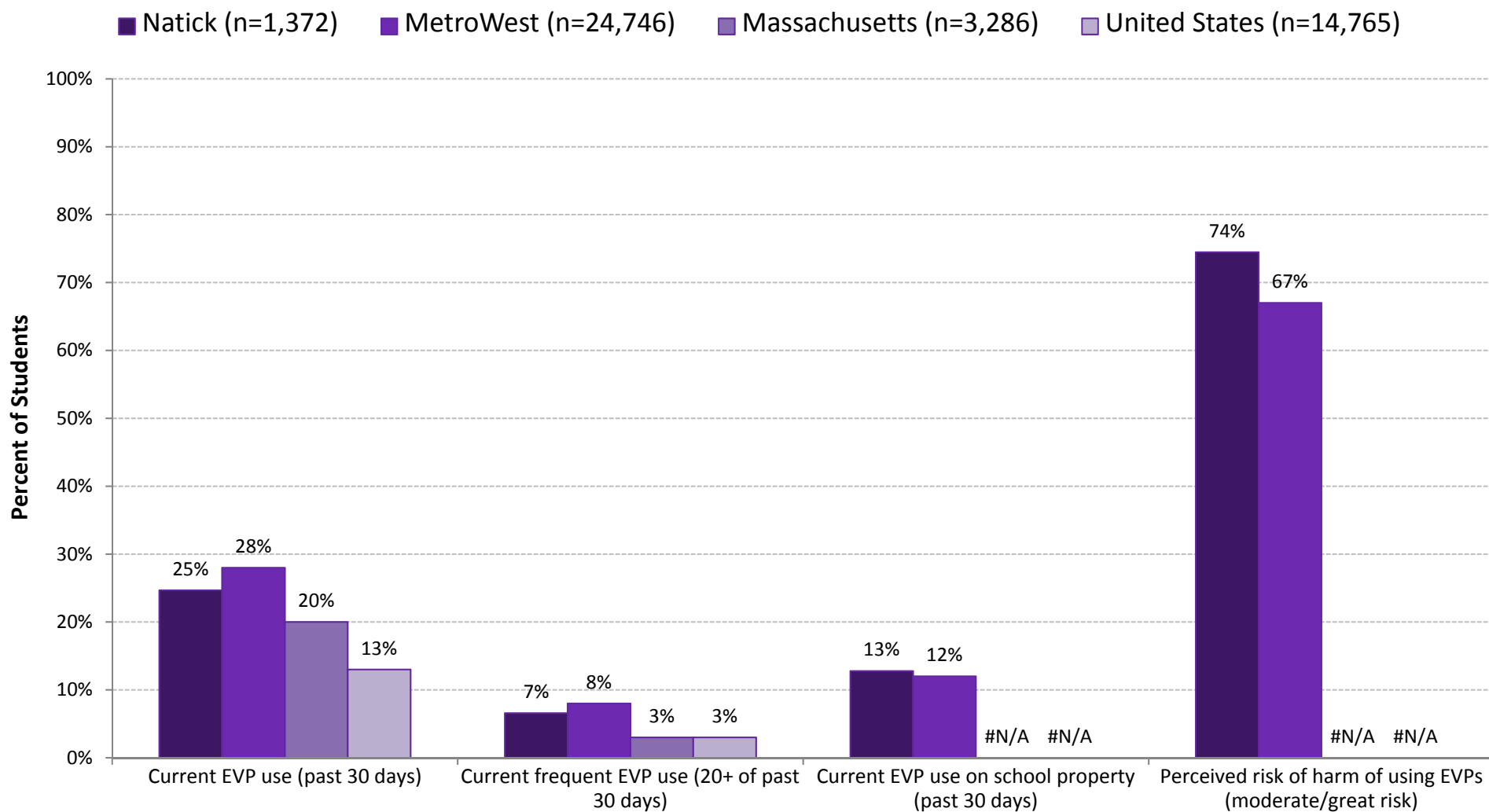
MetroWest Adolescent Health Survey



Vaping / E cigarette at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey



Vaping Interventions

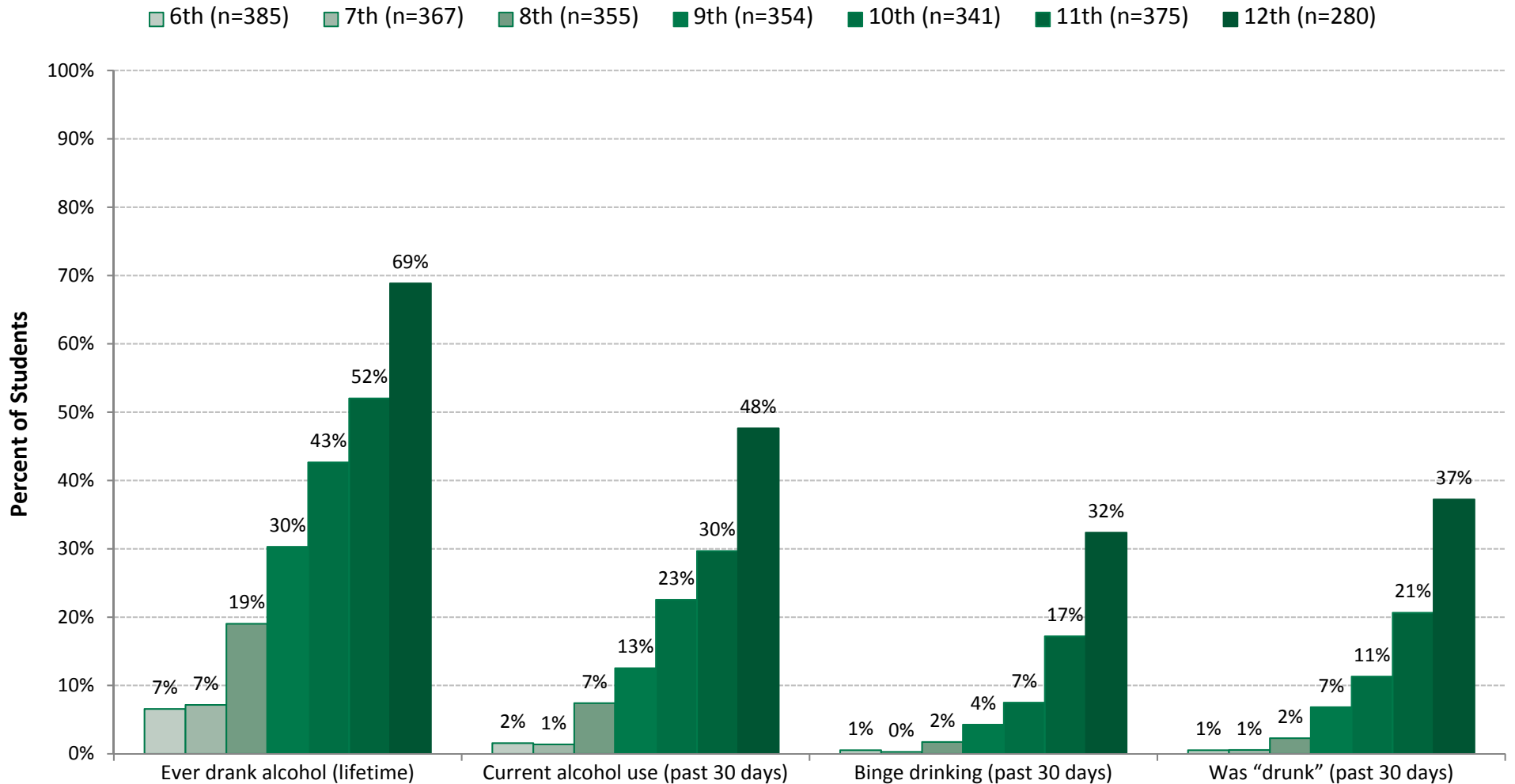
- Detection
- Discipline
- Health classes grades 3-4, brain health
- Health classes grade 7, anti-vaping
- Health classes grade 10, anti-vaping
- Diversion program, in lieu of discipline
- Intervention program
 - UMASS Cessation Pilot Program
 - Cessation program has been offered to MS no participants yet

Alcohol

Alcohol Use by Grade, 2018

Natick Students (Grades 6-12)

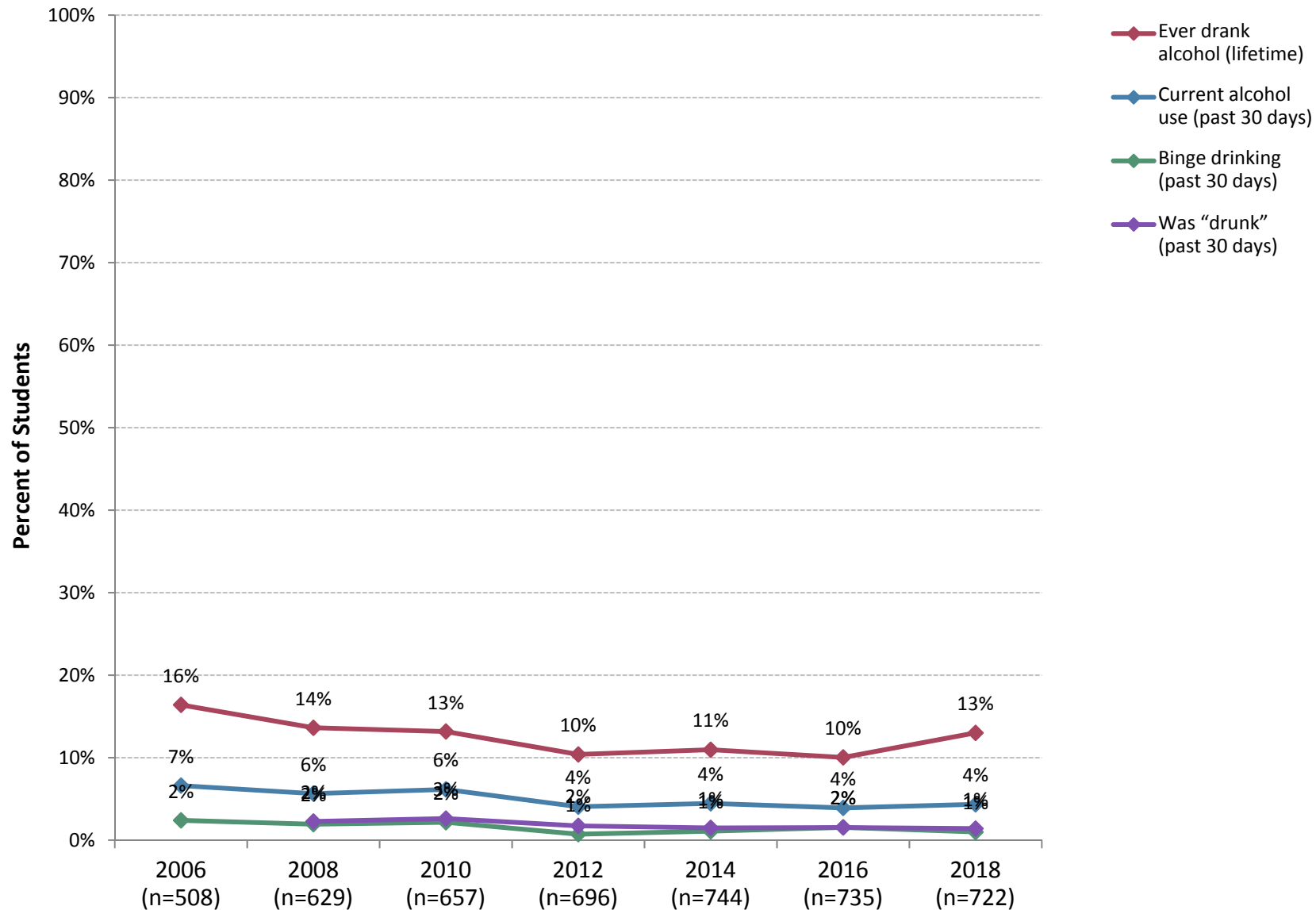
MetroWest Adolescent Health Survey



Trends in Alcohol Use 2006-2018

Natick Middle School Students (Grades 7-8)

MetroWest Adolescent Health Survey

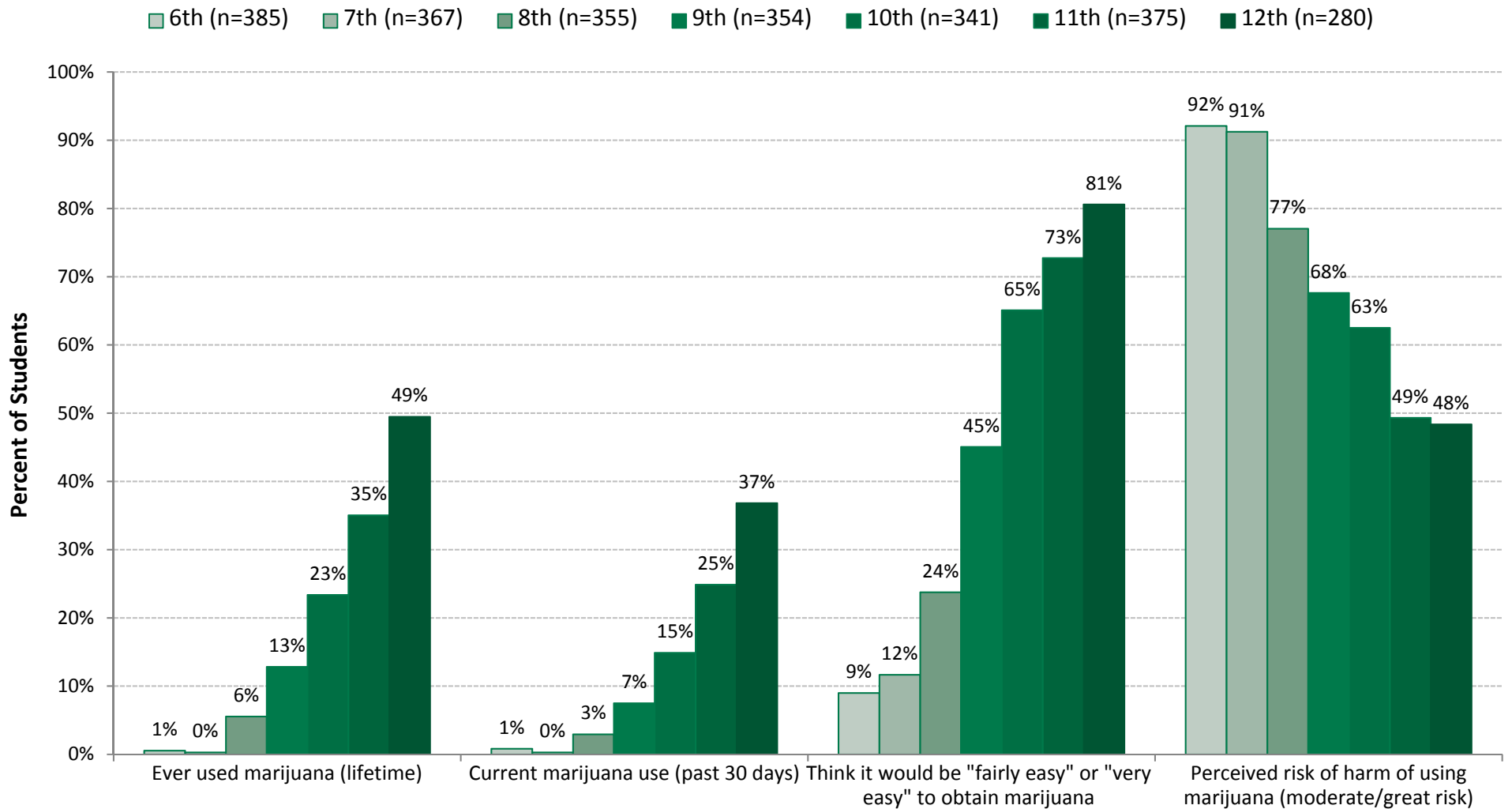


Marijuana

Marijuana by Grade, 2018

Natick Students (Grades 6-12)

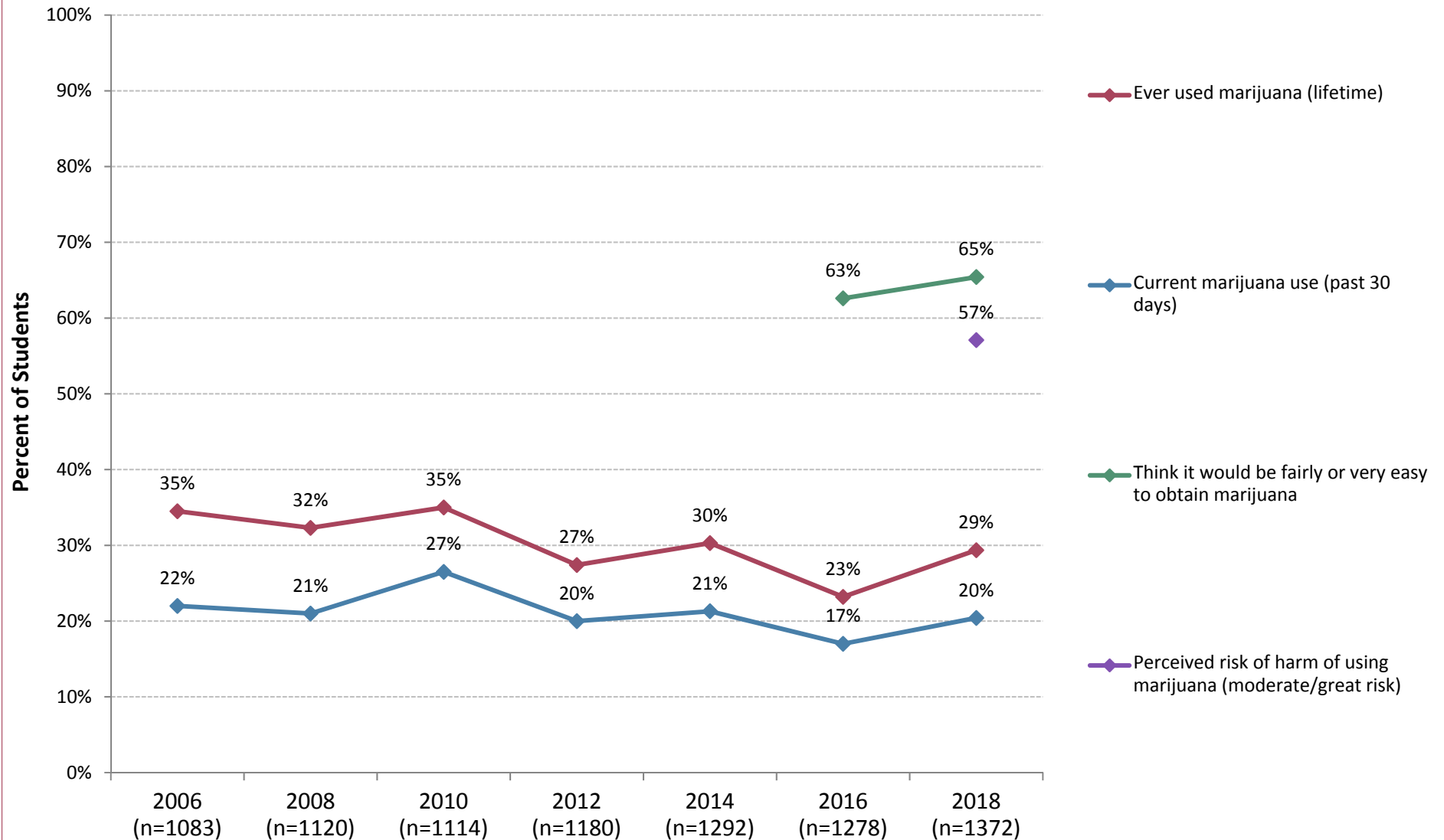
MetroWest Adolescent Health Survey



Marijuana 2006-2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey



Interventions for Substance Use Prevention/Education

- SBIRT Screening Grades 7 and 9
- 1:1 Education and Positive Reinforcement to Students at SBIRT Screening
- SBIRT Evaluation by Children's Hospital ASAP Program
- Parental and Student Education when prescribed Opioids
- Athlete Opioid education
- Recovery Coaches at NHS- staff dedicated to working with kids with substance abuse needs
- Community Based Wrap-Around Services
- Natick 180 strategic planning, funding and service coordination
- Multiple Staff serve as members of Natick 180 and their subcommittees
- Staff Monitoring at School Functions/Athletic Events
- SRO Education to students

Interventions for Substance Use Prevention/Education (Cont.)

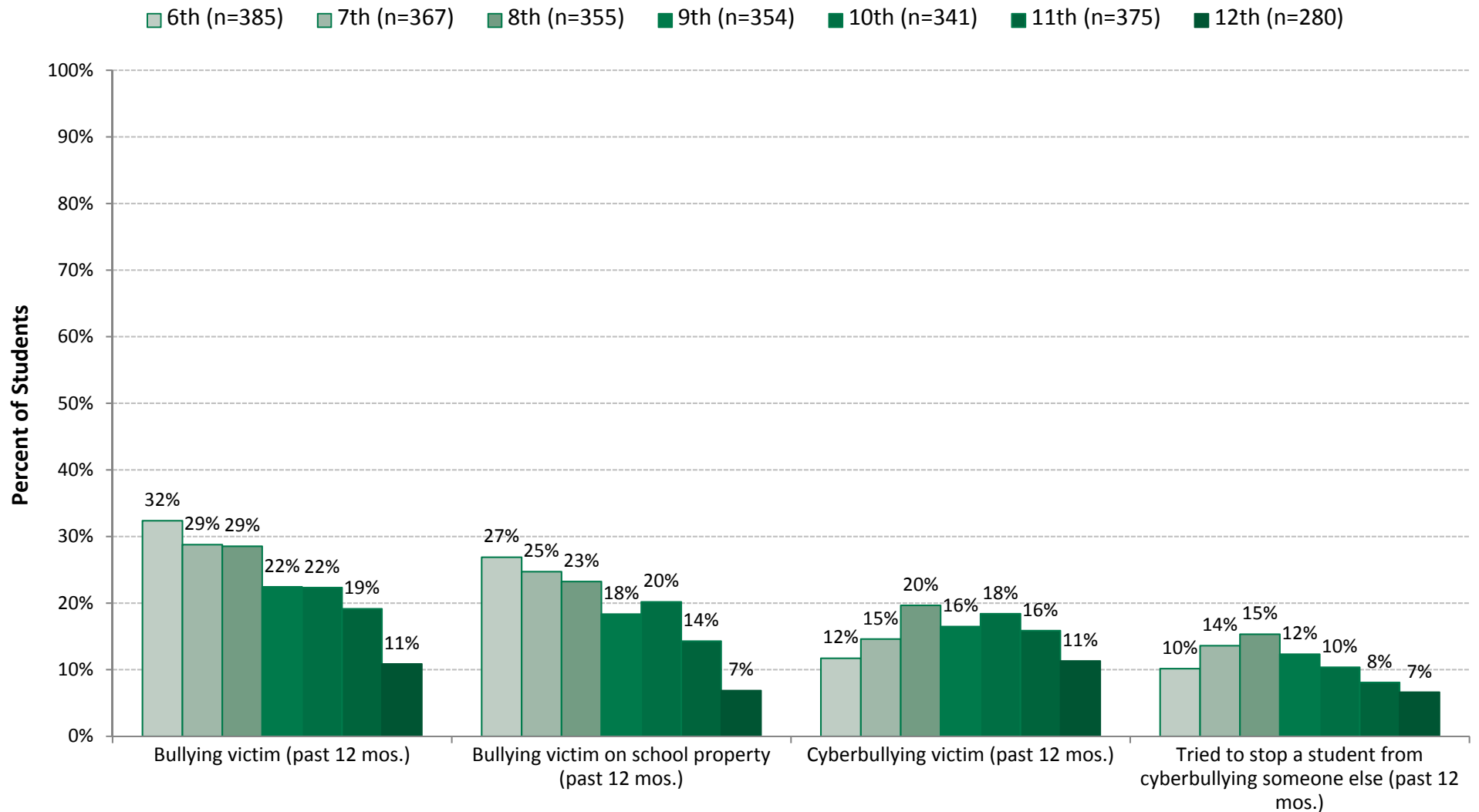
- RedHawk Fest Event at the start of school year
- Narcan in all schools
- Health Curriculum
- Parent Education in Eblasts/Newsletters
- Building Relationships with students/Trusted Adult
- Position at NHS dedicated to substance use challenges
- Addressing student stress/concerns
- NATI visiting Middle Schoolers (in progress)
- Natick Above the Influence group (NATI) is the regional group for 84 Movement
- Vaping cessation program developed by UMass Medical School Center for Tobacco Treatment Research & Training (pilot beginning December 2019)

Bullying/Cyberbullying

Bullying/Cyberbullying by Grade, 2018

Natick Students (Grades 6-12)

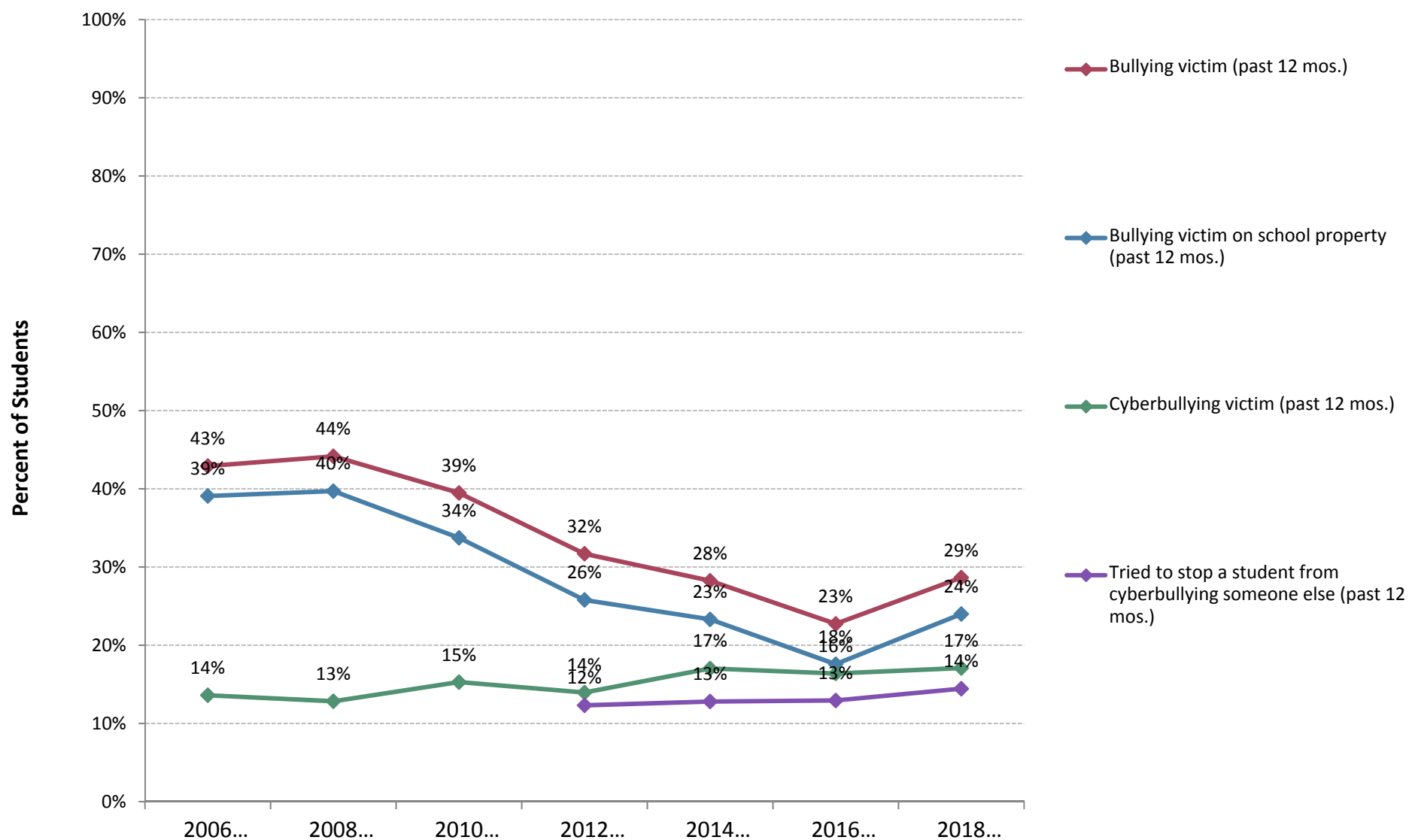
MetroWest Adolescent Health Survey



Trends in Bullying/Cyber Bullying Use 2006-2018

Natick Middle School Students (Grades 7-8)

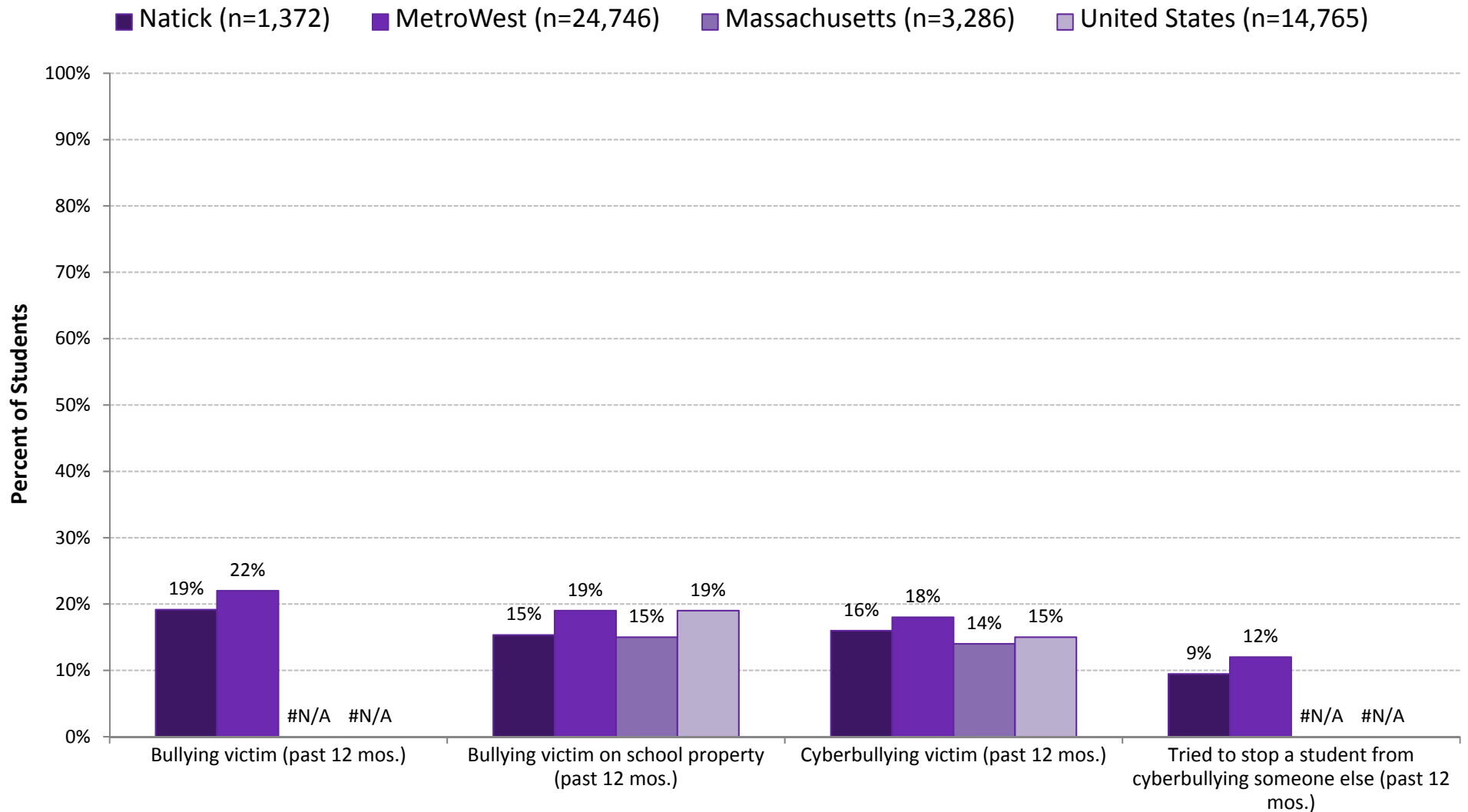
MetroWest Adolescent Health Survey



Bullying/Cyberbullying at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey



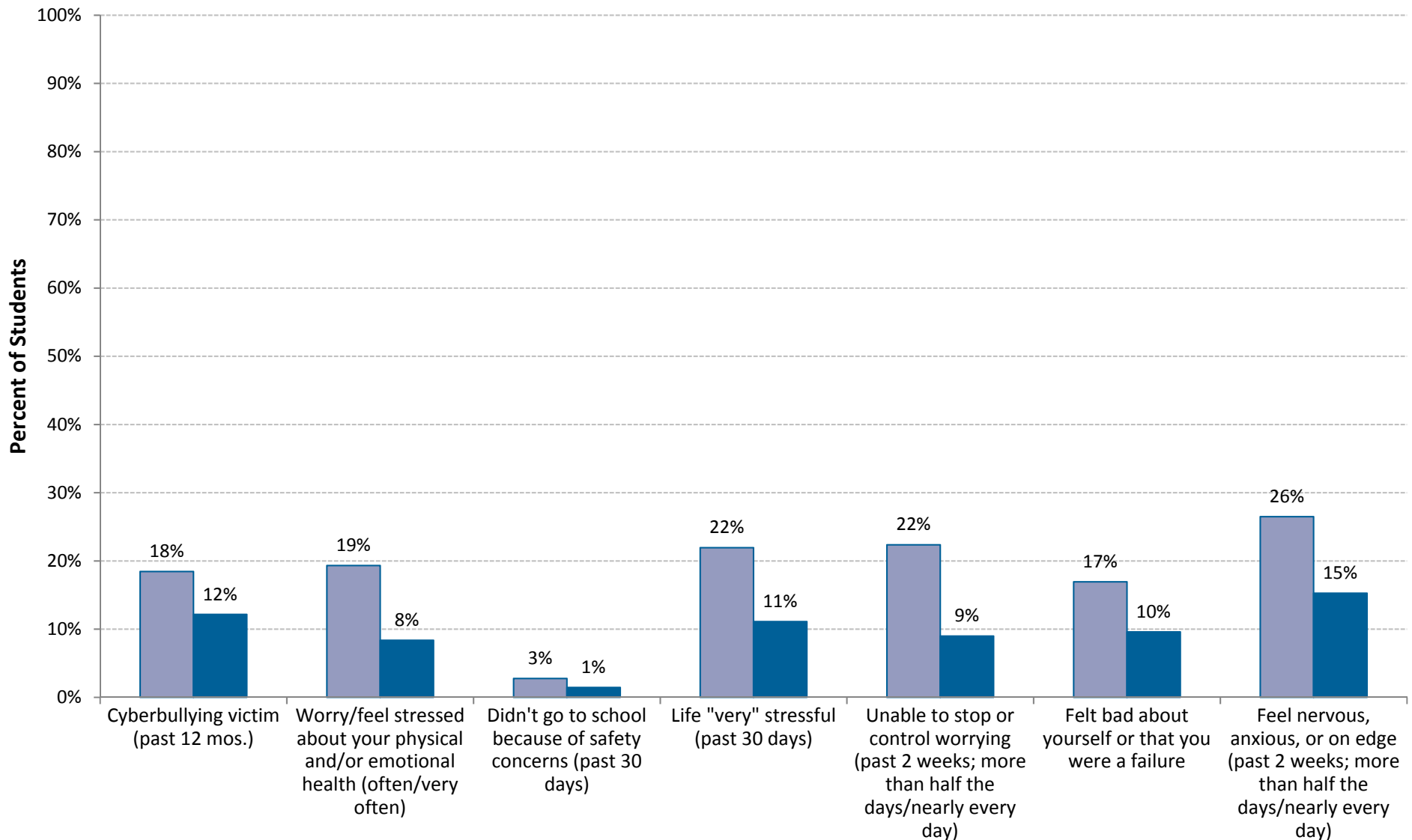
Online/Bullying/Stress by Sex, 2018

Natick Middle School Students (Grades 6-8)

MetroWest Adolescent Health Survey

Female (n=547)

Male (n=555)



Interventions Addressing Bullying/Cyberbullying

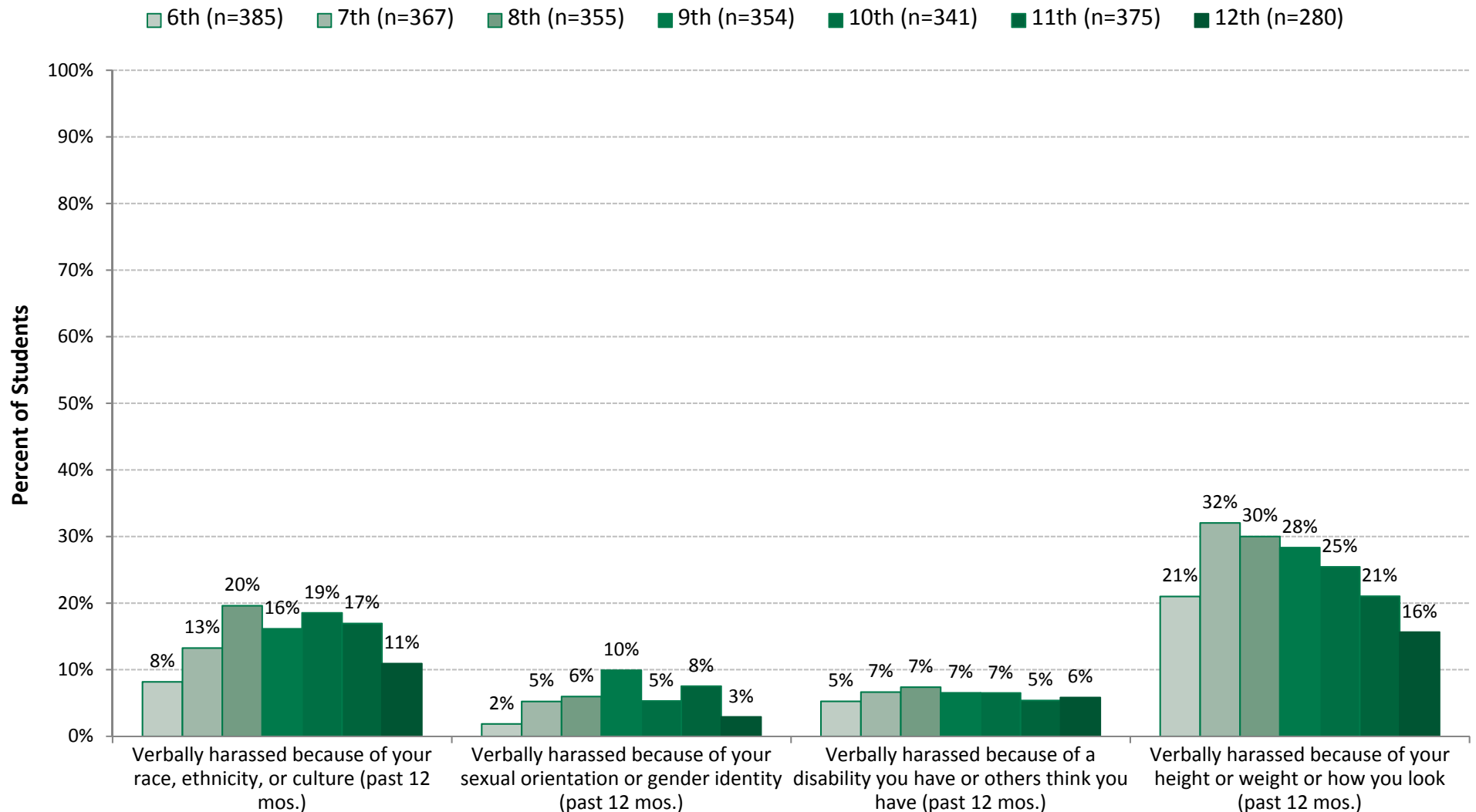
- ADL Group/Peer leadership (all schools)
- Connections Club (NHS)
- Diversity Committee (NHS)
- Speak Up Natick /Anonymous Reporting
- Cyberbullying Education by SRO
- 5th Grade Guidance Curriculum (KMS)
- 5th Grade Core Values (WMS)
- Facing History Curriculum
- Freshman Orientation and Mentoring Program

Diverse Group Harassment/Microaggression

Diverse Group Harassment/Microaggressions by Grade, 2018

Natick Students (Grades 6-12)

MetroWest Adolescent Health Survey

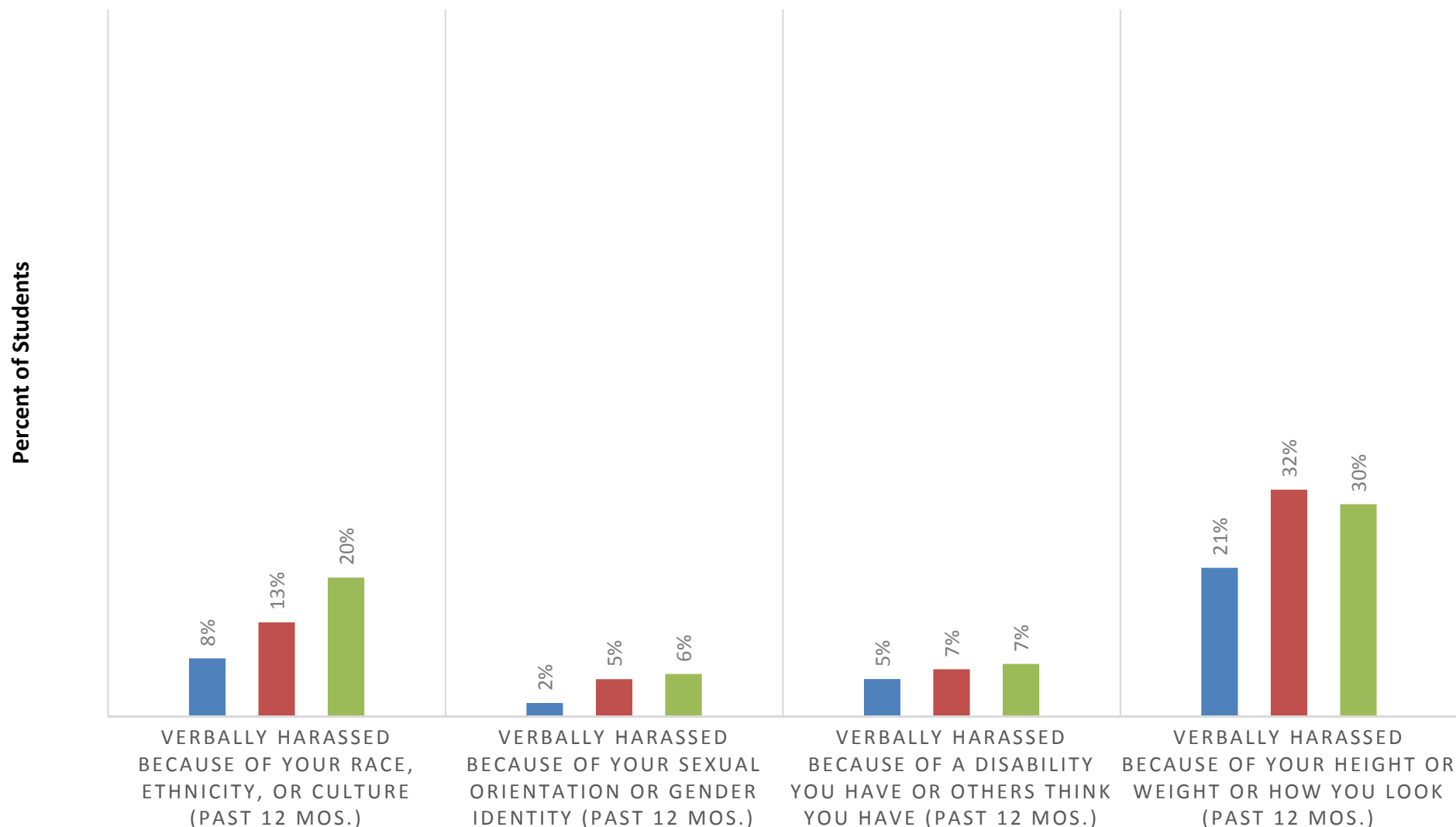


Diverse Group Harassment/Microaggressions by Grade, 2018

Natick Middle School Students (Grades 6-8)

MetroWest Adolescent Health Survey

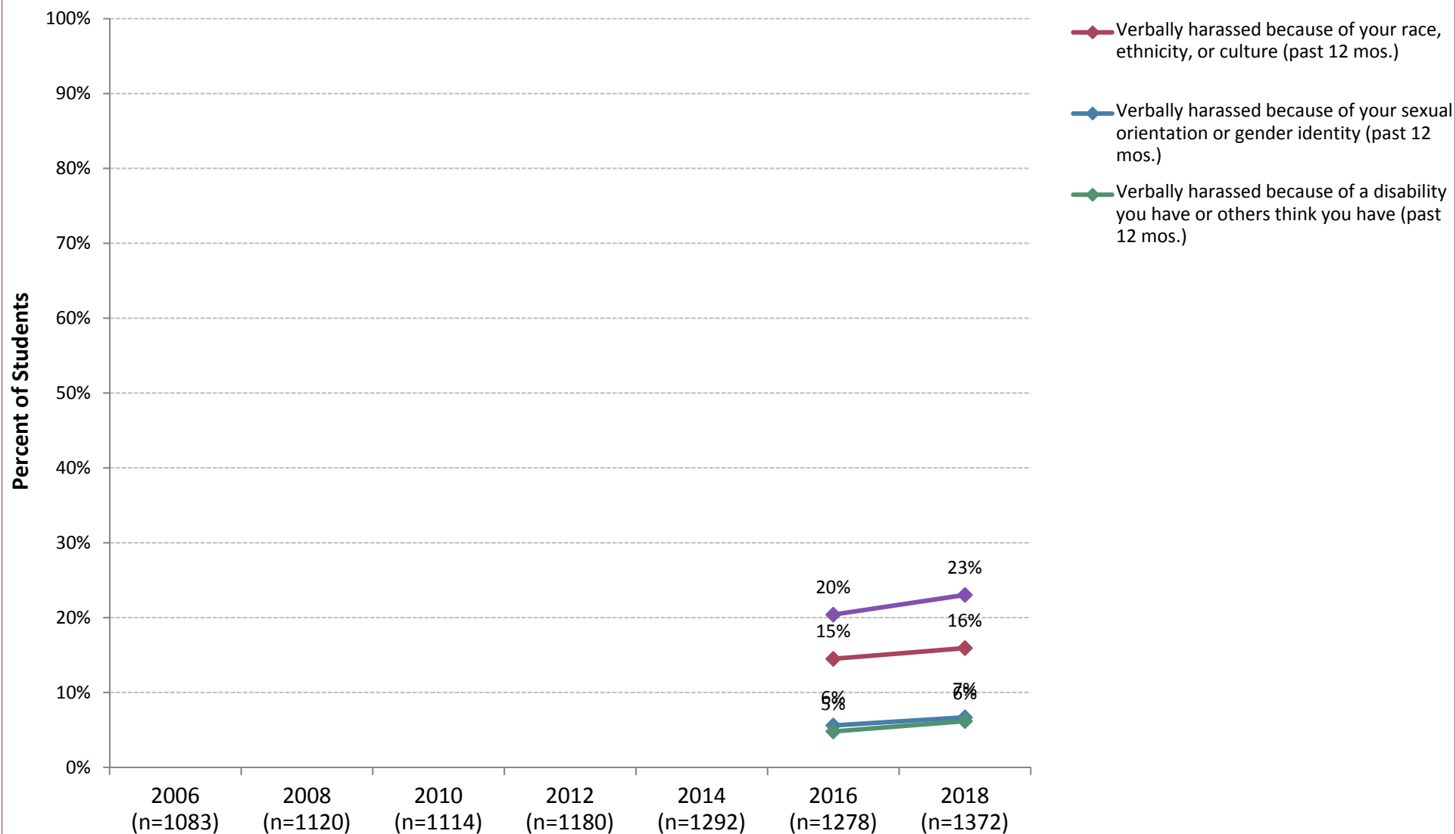
■ 6th (n=385) ■ 7th (n=367) ■ 8th (n=355)



Diverse Group Harassment/Microaggressions 2006-2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey

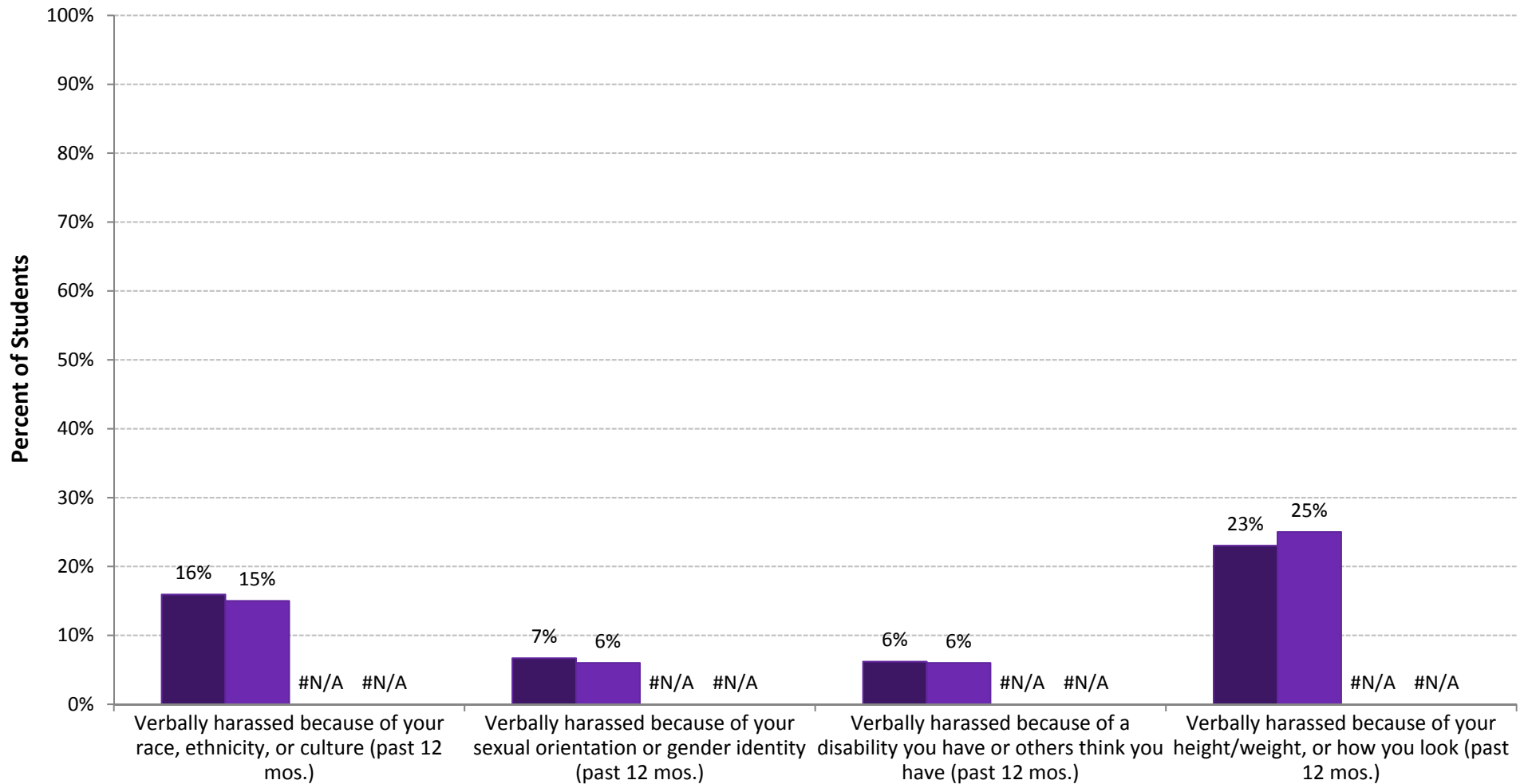


Diverse Group Harassment/Microaggressions at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey

■ Natick (n=1,372) ■ MetroWest (n=24,746) ■ Massachusetts (n=3,286) ■ United States (n=14,765)



Interventions Supporting Youth of Diverse Groups

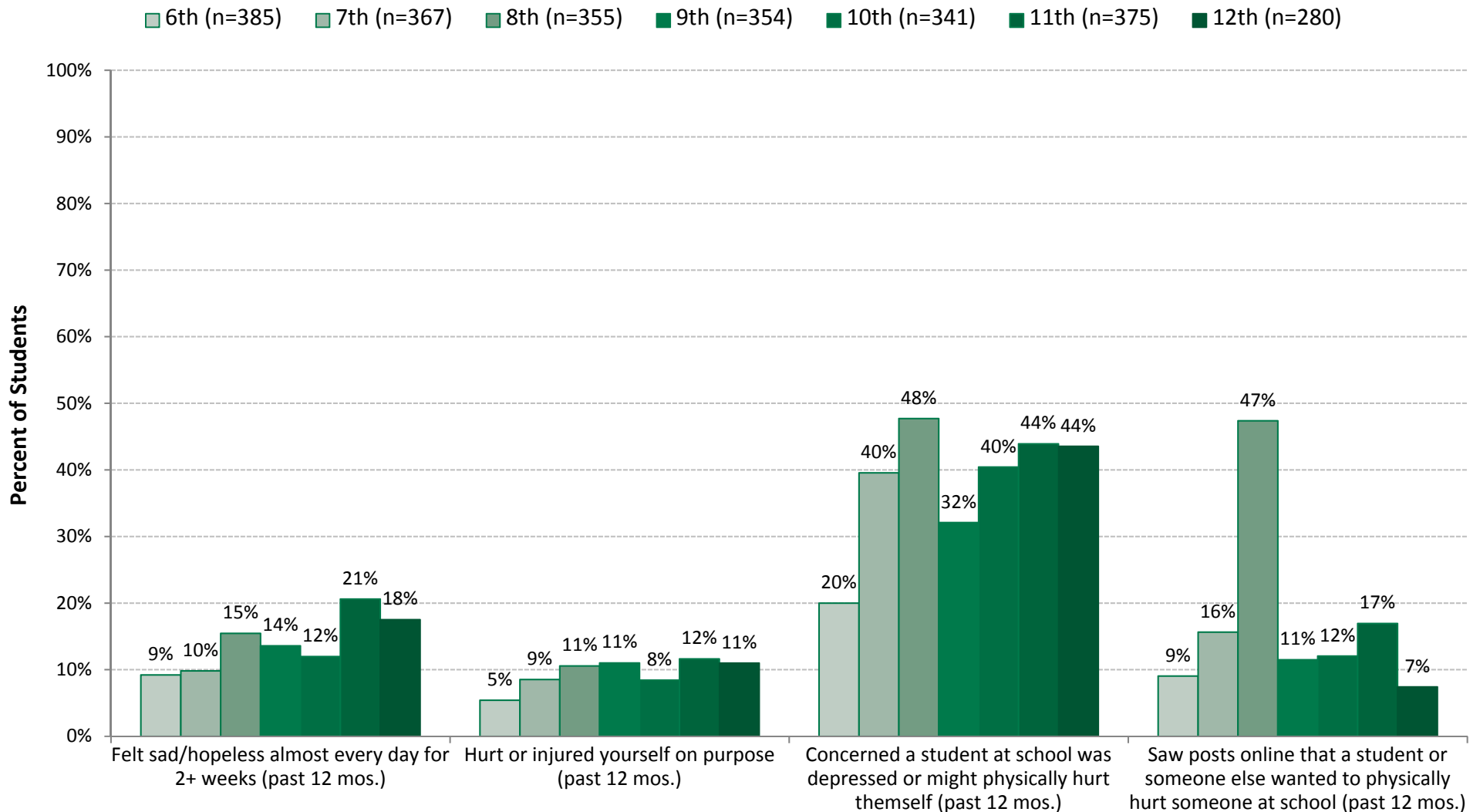
- On-line Gender Sexuality Resource Guide for students/families
- [Natick LGBTQ Resource Site \(link\)](#)
- Development and Production of Staff Training Video (PK-grade 12) for supporting LGBTQ+ students and their families
- Opening Day Training for all Staff/Follow Up Instructional Resources Given to Every Teacher
- Gender Neutral Bathrooms
- GSA Clubs, ONE Wilson
- Gender Studies Class at NHS
- Display of PEACE Flag
- LGBTQ friendly books, pamphlets and posters in clinics
- LGBTQ+ affirming/positive message posters on display
- Diversity Committee at NHS
- ADL peer leadership training
- Facing History middle and high school programs
- Active Anti-Racism group work via Natick Is United, Freedom Fighters
- Racial Affinity Groups, Crew, Advisory
- ACES group, supporting student achievement in STEM courses
- Data Team work to track and address racial, gender, disability and other sub group performance

Student Mental Health

Depressive Symptoms by Grade, 2018

Natick Students (Grades 6-12)

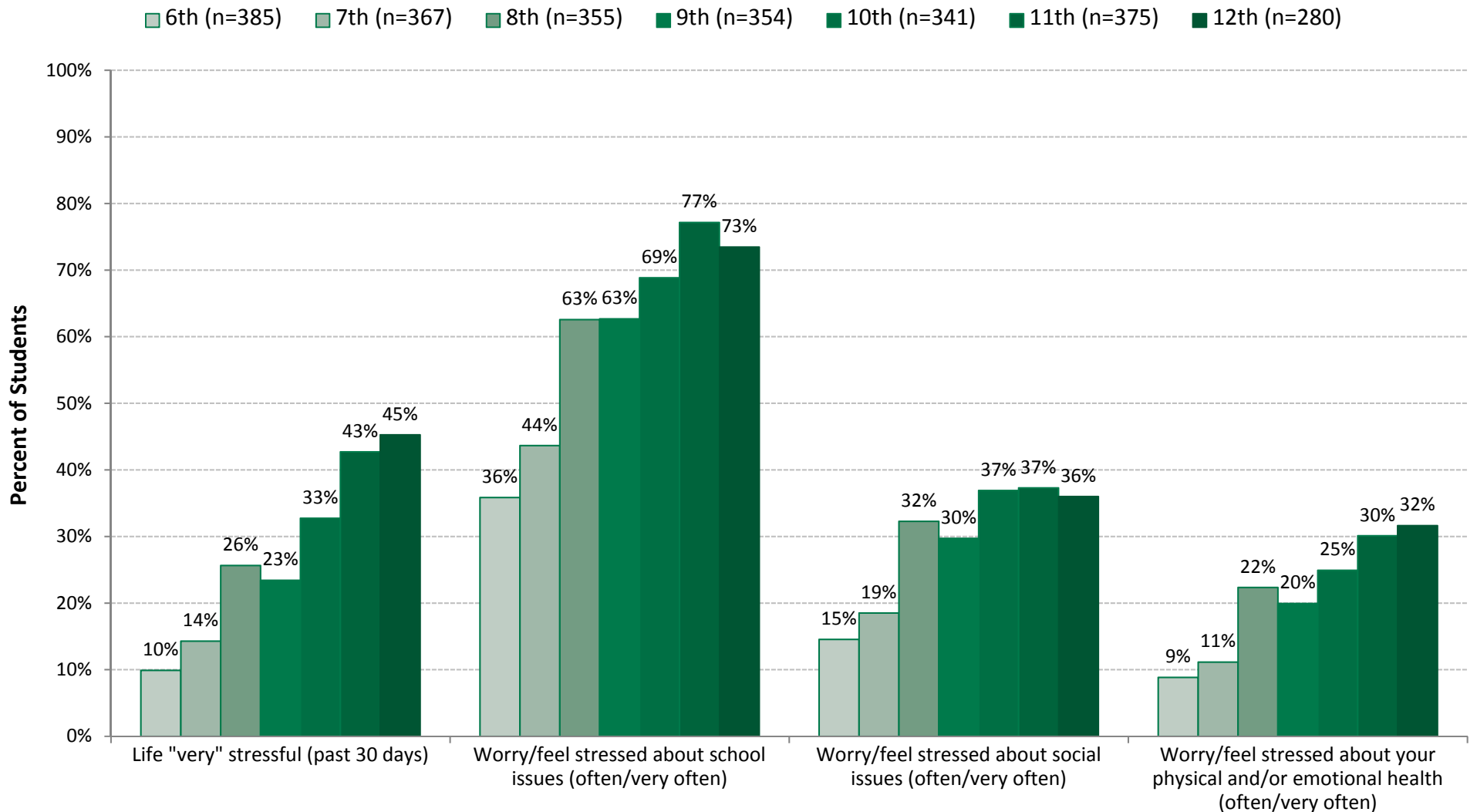
MetroWest Adolescent Health Survey



Stress by Grade, 2018

Natick Students (Grades 6-12)

MetroWest Adolescent Health Survey

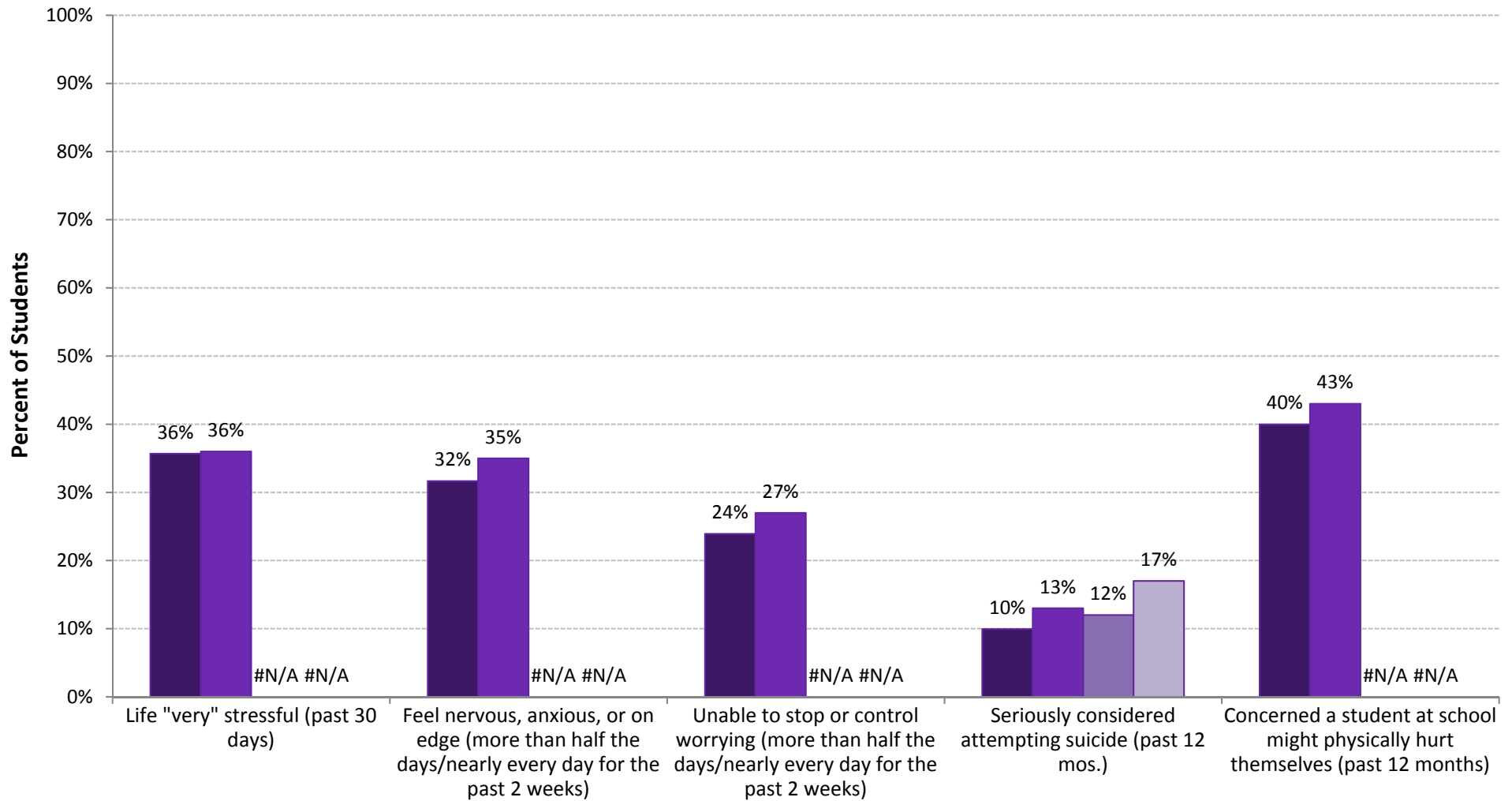


Stress/Depressive Symptoms at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey

■ Natick (n=1,372) ■ MetroWest (n=24,746) ■ Massachusetts (n=3,286) ■ United States (n=14,765)



Interventions Addressing Student Mental Health

- Depression Screening Grades 7-9-11 Dr. Tracy Gladstone
- Staff have received training from Benson-Henry Mind Body Clinic (MGH)
- Therapy Dogs
- PACE and Compass Programs at NHS
- Homework Free Vacations
- Early Identification of Students with Mental Health Concerns
- Lunch Groups for Student Groups
- Before School Groups for Students
- 3 C's Groups-(KMS), 5th grade Core Value Class (WMS)
- Yoga Club
- Staff incorporating mindfulness and stretch breaks in class
- Strengthen Staff-student relationships
- Student Groups- Peer Leadership, ADL, Connections
- Student Inclusion in Clubs
- Laps at Lunch
- Health Curriculum
- SEL goal for district, district steering committee, emerging grade level expectations, interventions and screenings (part of long-range strategic plan)

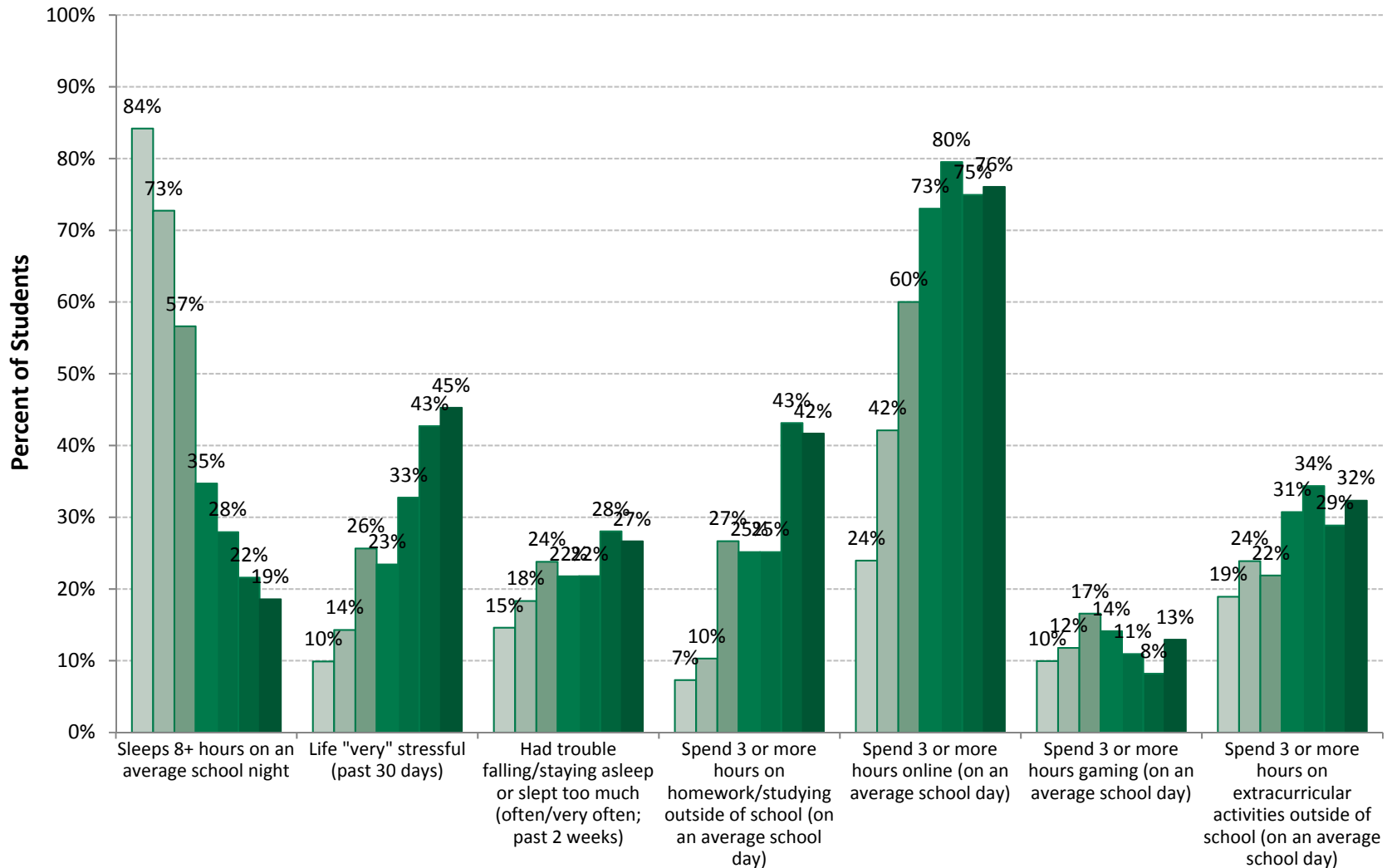
Sleep

Sleep Factors by Grade, 2018

Natick Students (Grades 6-12)

MetroWest Adolescent Health Survey

6th (n=385) 7th (n=367) 8th (n=355) 9th (n=354) 10th (n=341) 11th (n=375) 12th (n=280)

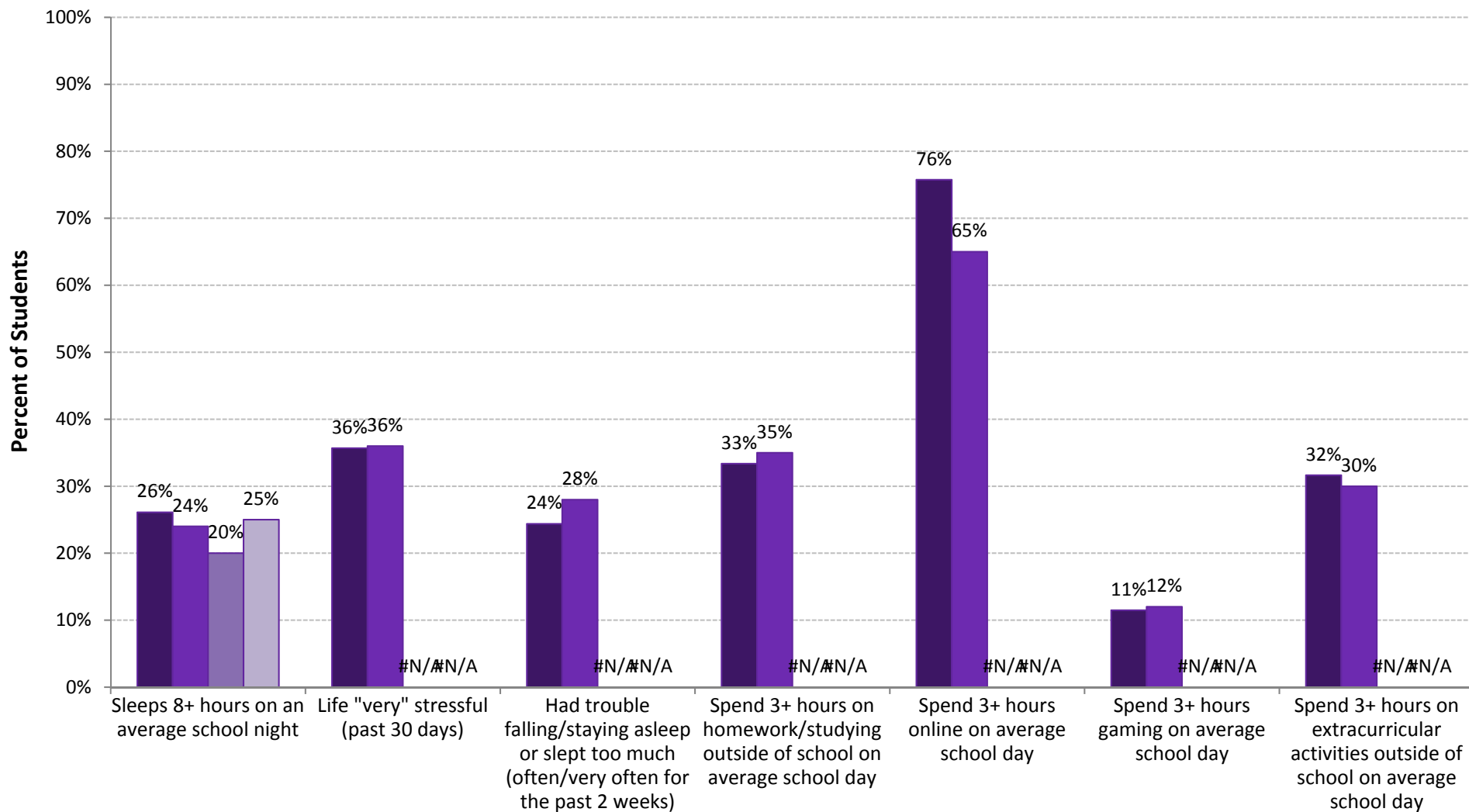


Sleep Factors at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey

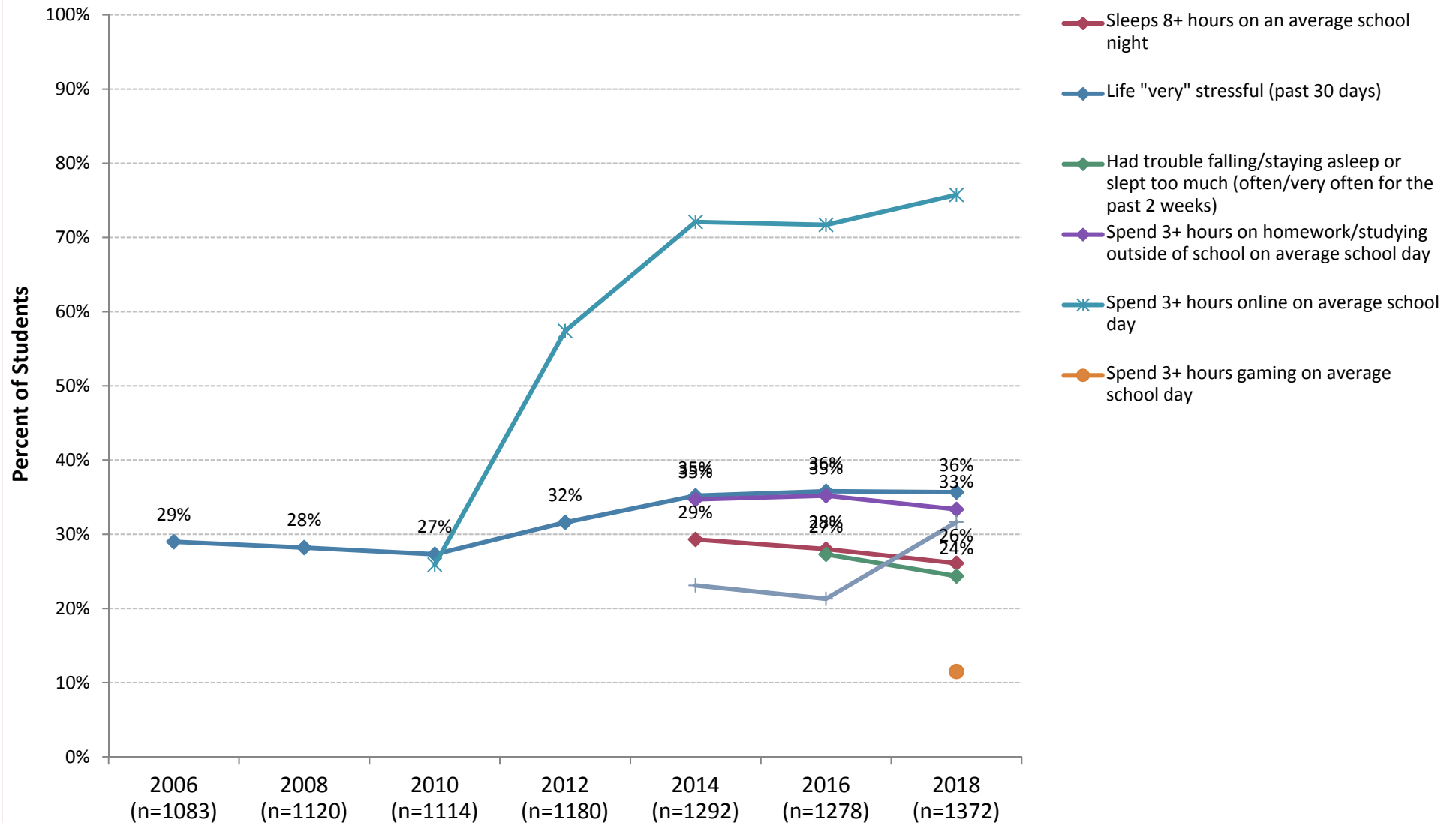
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Sleep Factors 2006-2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey



Sleep Interventions

- Education to community through forums on brain research and neuro-diversity
- Community start time exploration
- Homework free holidays and weekends
- Departmental and team examination of homework assignment
- Interventions in mental health, RTI, physical fitness and health classes
- Grade 3-5 lessons on body and brain health
- Grade 5 nutrition and body health/hygiene curriculum

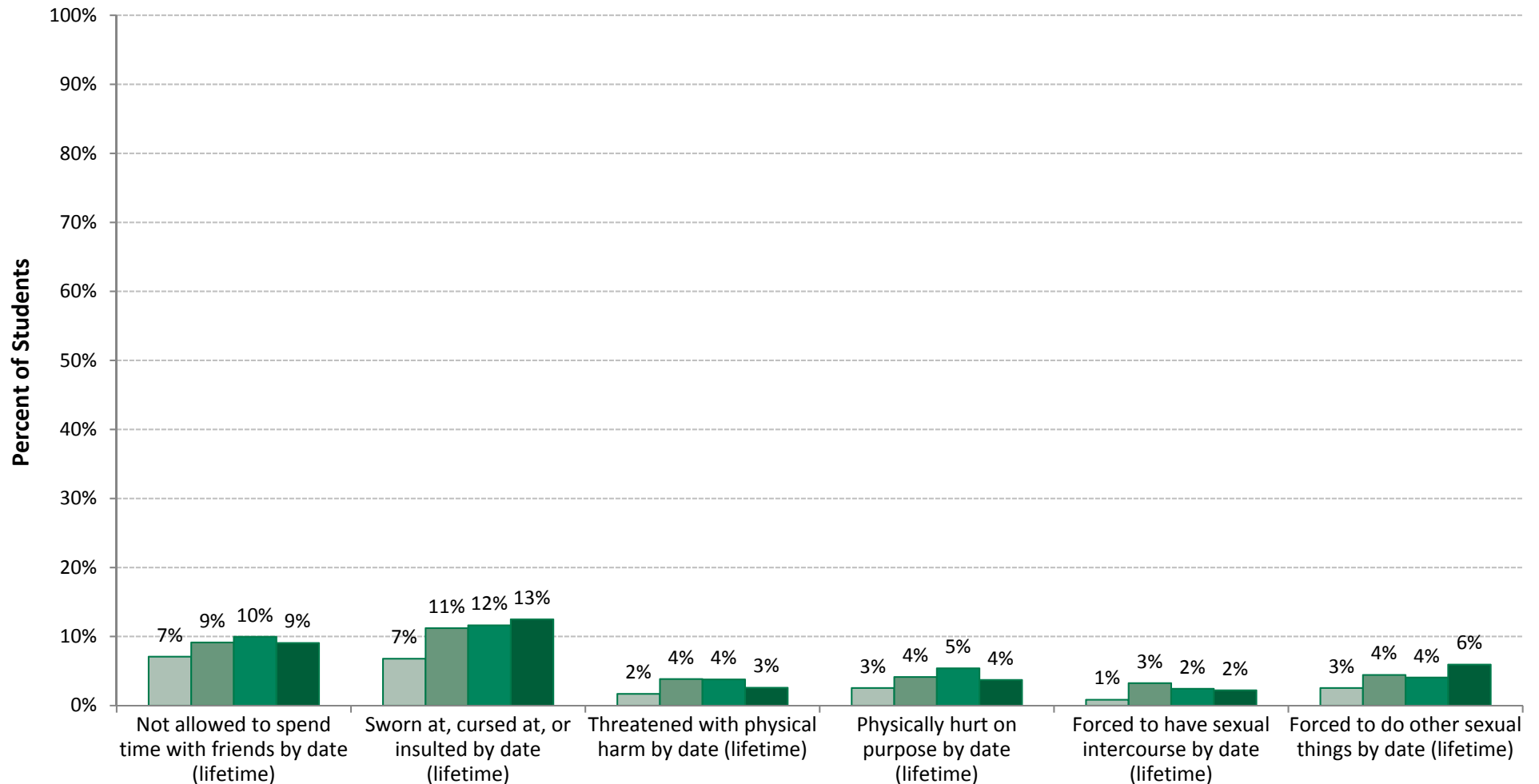
Relationships

Dating Violence by Grade, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey

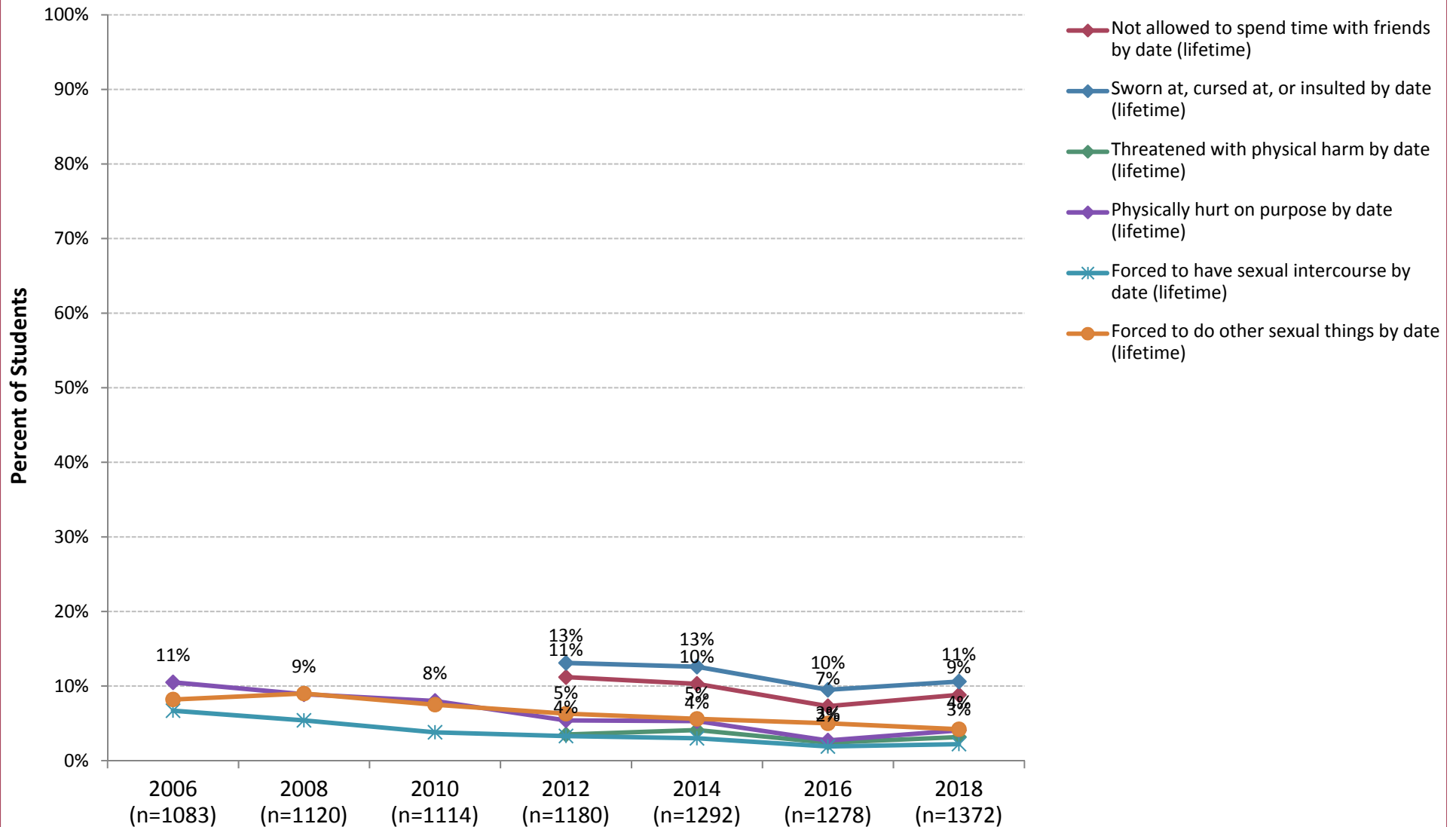
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Trends in Dating Violence 2006-2018

Natick High School (Grades 9-12)

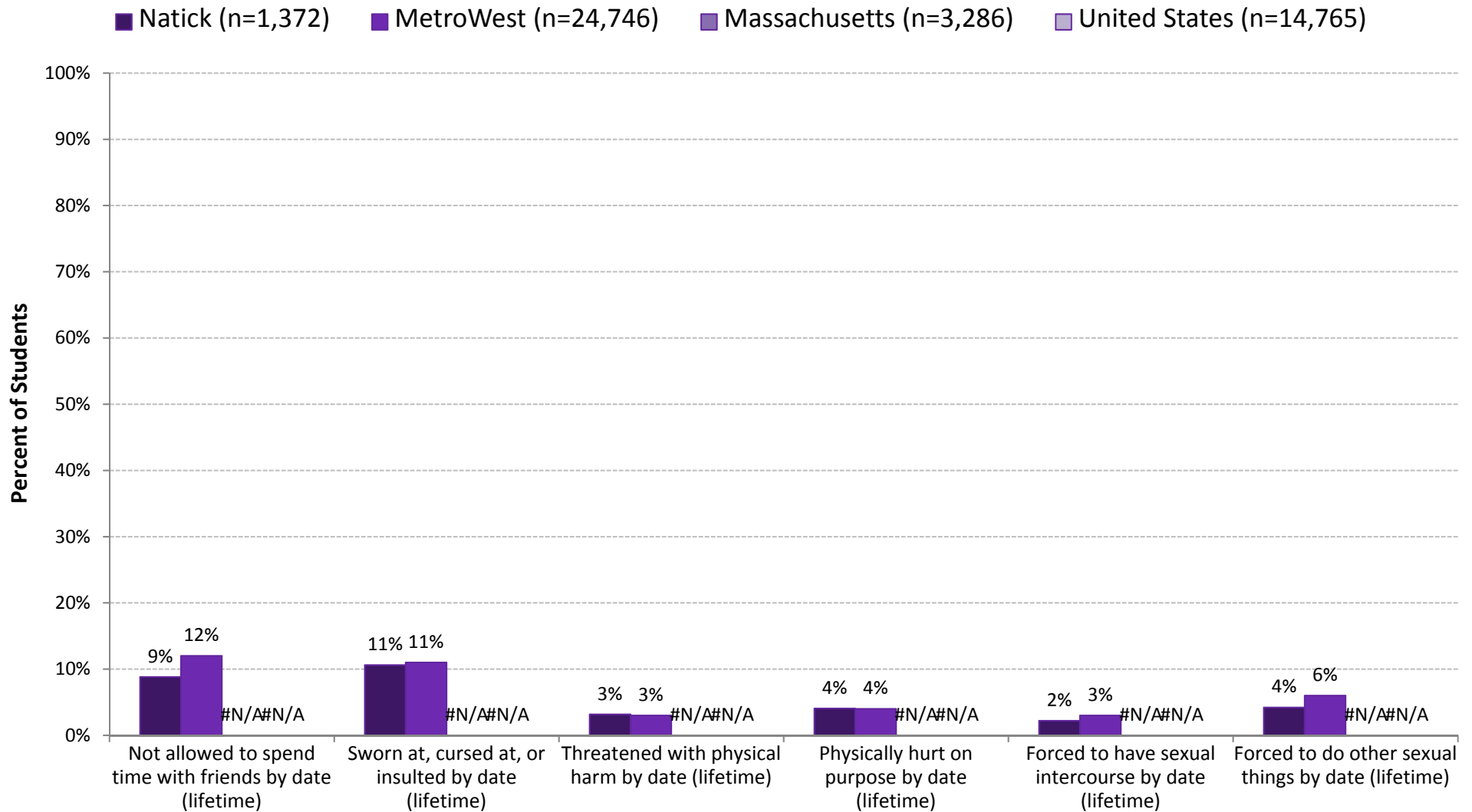
MetroWest Adolescent Health Survey



Dating Violence at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

MetroWest Adolescent Health Survey



Interventions Addressing Dating Behavior

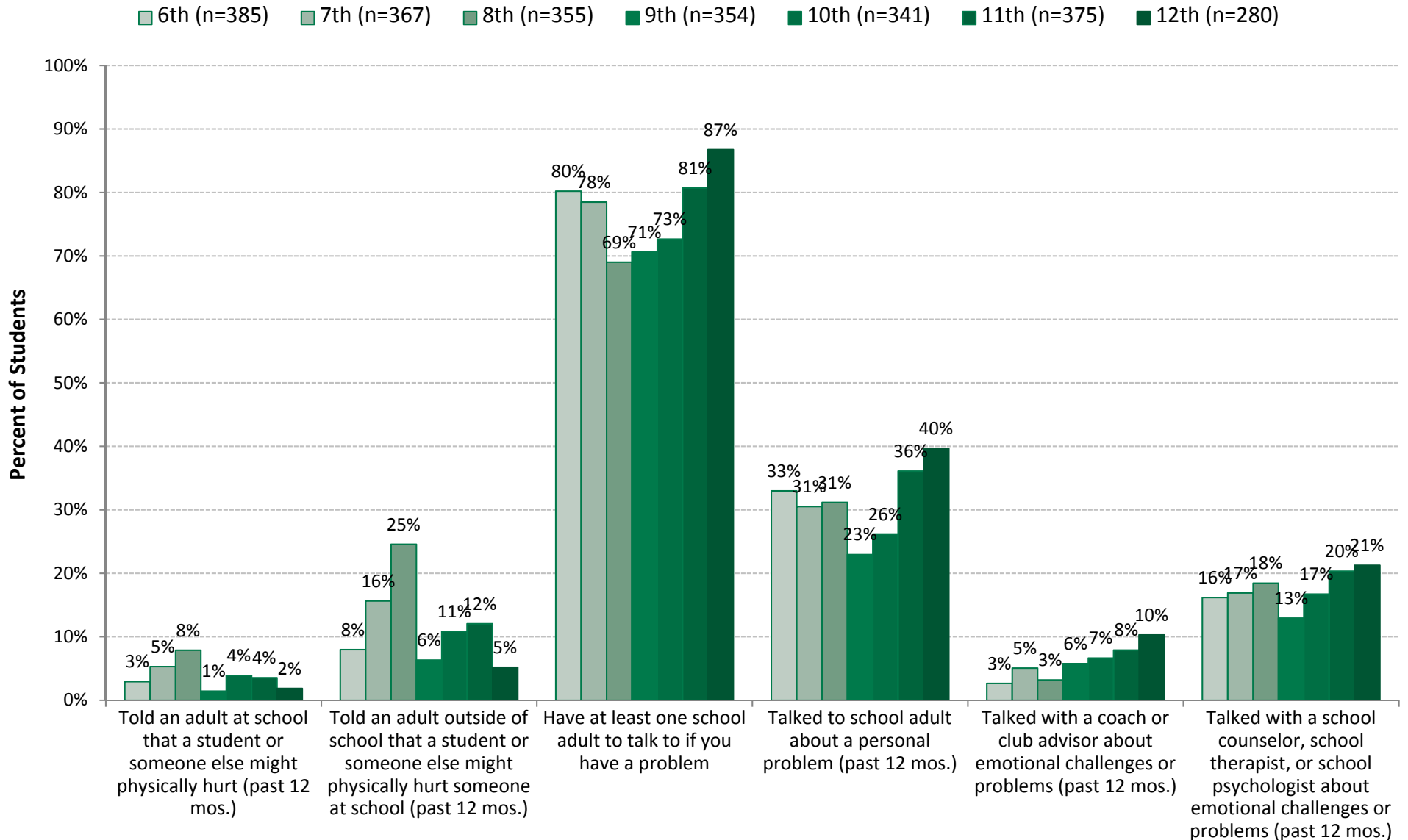
- Health Curriculum
- Game Changer Program at NHS
- MVP Program
- SRO Presentation to all 8th grade students in Health classes
- Building trusting relationships with students
- New health elective course just approved: Healthy Relationships for Social Change (see handout for class

Trusted Adults/#relationships matter

Trusted Adult by Grade, 2018

Natick Students (Grades 6-12)

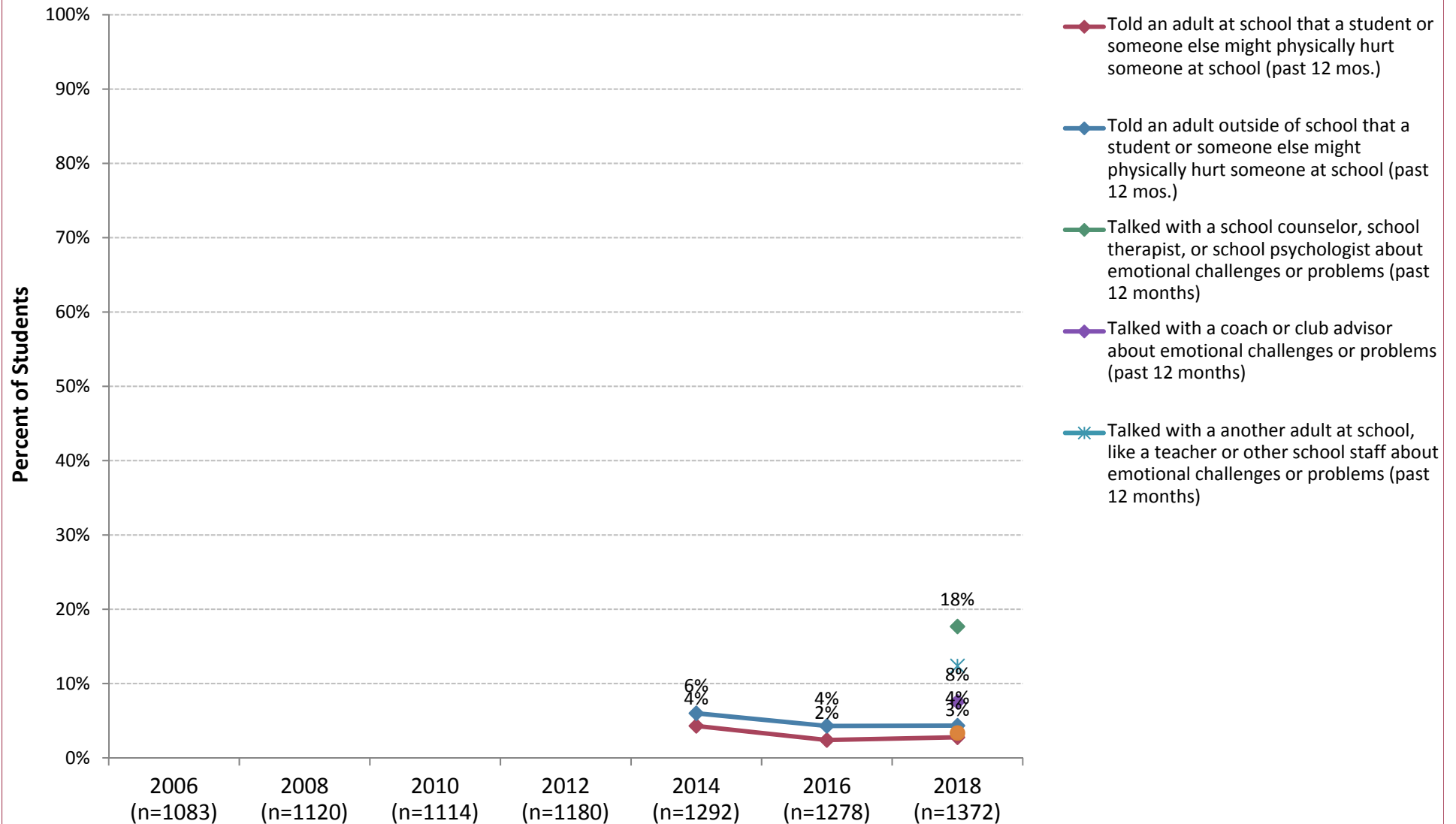
MetroWest Adolescent Health Survey



Trends in Trusted Adults 2006-2018

Natick High School (Grades 9-12)

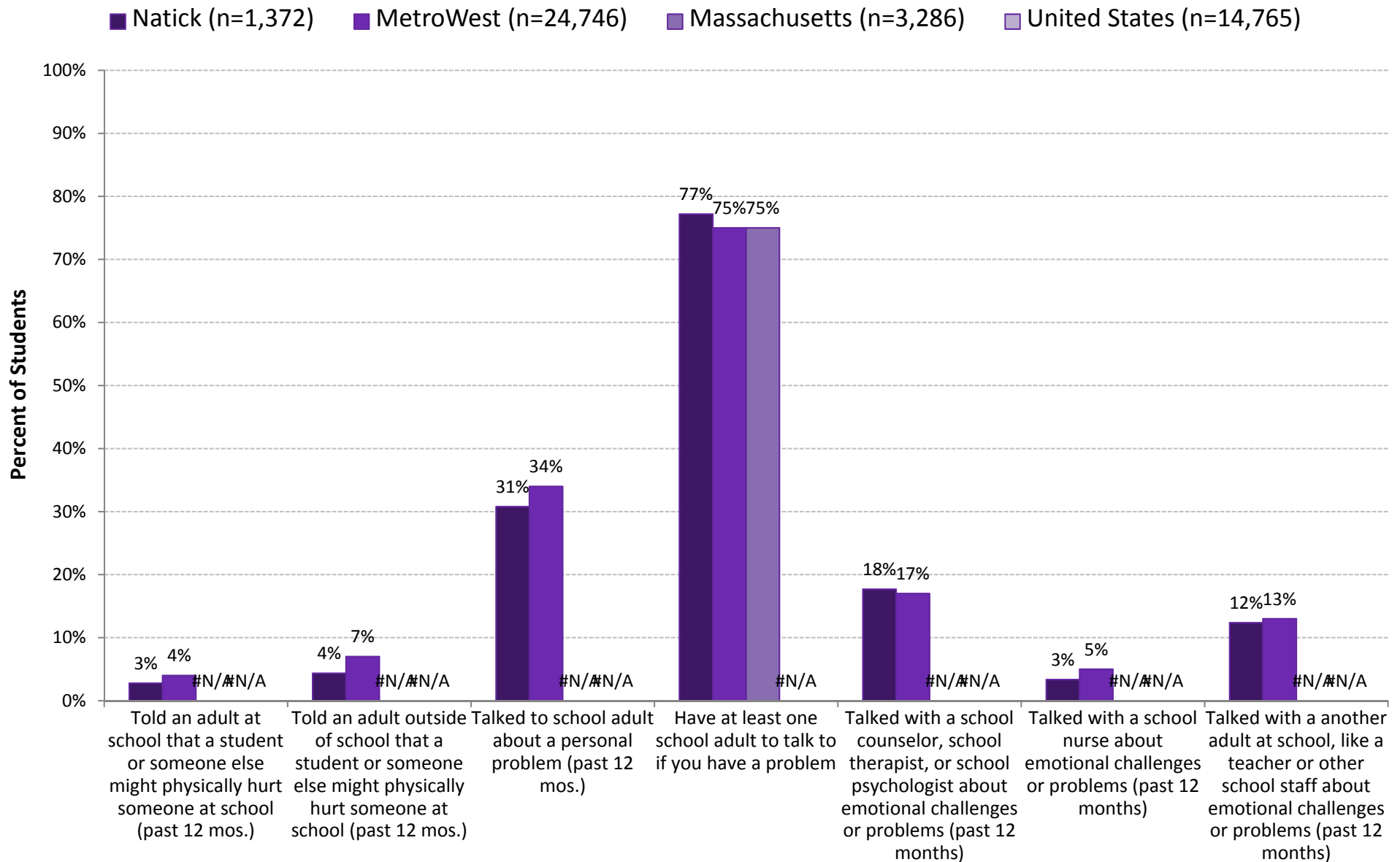
MetroWest Adolescent Health Survey



Trusted Adults at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

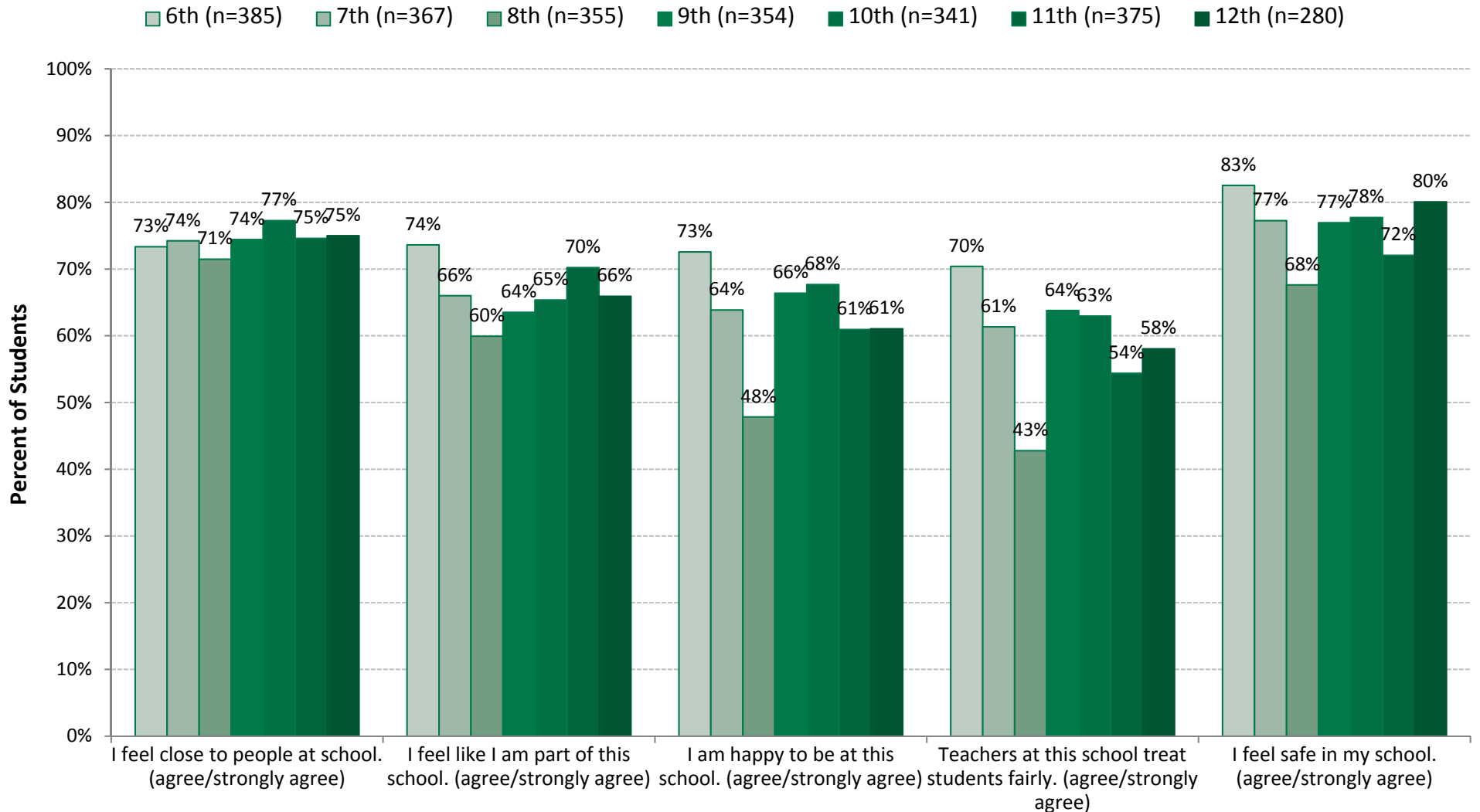
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School Attachment by Grade, 2018

Natick Students (Grades 6-12)

MetroWest Adolescent Health Survey

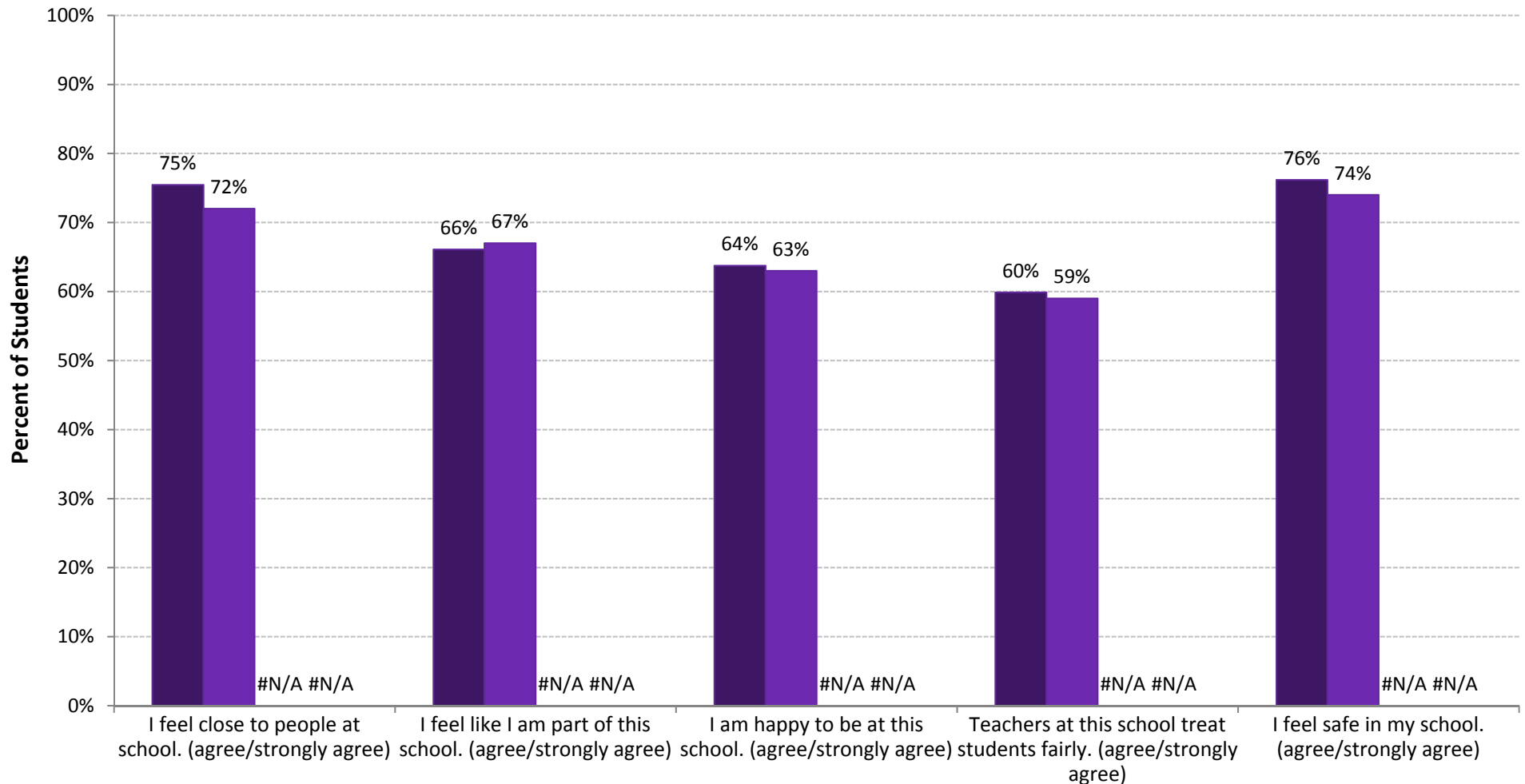


School Attachment at the District, Regional, State, and National Levels, 2018

Natick High School (Grades 9-12)

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■ Natick (n=1,372) ■ MetroWest (n=24,746) ■ Massachusetts (n=3,286) ■ United States (n=14,765)



Interventions Supporting Trusted Adult Relationships

- Natick Police Summer Youth Academy
- Trusted Adult Committee (NHS)
- Diversity Committee (NHS)
- Freshman Orientation Committee (NHS)
- Sports/Clubs/Activities (NHS, KMS, WMS)
- 3 C's Groups (KMS)
- ASAP (KMS and WMS)
- Peer Leadership
- Lunch Groups
- Mentoring Program (WMS)
- Connections Club (NHS)
- Capstone program with community partners
- Surveys on trusted adult progress

NPS Strategic Plan

- Addresses brain and body health living framework for all students
- Seeks to engage parents, staff and students in social-emotional learning and interventions
- Cultivates a profile of a graduate inclusive of resilience and empathy as core values
- Nurtures community connections and communication in service to student development and learning
- Addresses microaggressions and an equity plan for all diverse student groups