



# ***MICHIGAN STATE UNIVERSITY STUDENT HEALTH ASSESSMENT:***

## **Results of the 2020 NCHA Survey of MSU Students**

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**MICHIGAN STATE UNIVERSITY**  
Student Health & Wellness



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# MSU Student Health Assessment: 2020 NCHA

## INTRODUCTION AND METHODS

In the Spring of 2020, Michigan State University participated again in the National College Health Assessment Survey (NCHA) through the MSU Student Health and Wellness Center's membership in the American College Health Association (ACHA). The survey is designed to gauge the health and health behaviors of college students, especially as they impact their academic performance. The purpose is to enable university administrators to plan efforts that might help students thrive, to evaluate efforts to-date, and to inform students.

The NCHA was first conducted at MSU in 2000 and has been repeated every two years since then. The survey was administered on the ACHA website as a web survey designed by ACHA staff and the CORE Institute. At MSU, the online survey was managed by the Office for Survey Research within the Institute for Public Policy and Social Research.

In Fall, 2019, ACHA began administering a greatly revised version of the NCHA questionnaire that had been used since 2009 (NCHA II). While most of the same topics were addressed in NCHA III as had been covered in the previous version (NCHA II), relatively few of the questions were retained and some of those retained were provided different response options than in the previous version. Furthermore, NCHA III was designed to utilize programmed commands to skip respondents past questions not relevant to them based on their answers to previous questions. With the different programming structure, MSU staff were uncertain as to how well the items in NCHA III would replicate the measurements of NCHA II, especially for longitudinal tracking. While NCHA III is, most likely, the survey questionnaire for the next ten years, it seemed prudent to many of the involved MSU staff to assess the continuity of its results with the measurements of NCHA I and NCHA II from the past. Consequently, MSU staff elected to administer both NCHA II and NCHA III to separate random samples of MSU students during exactly the same time periods. The decision was made to strive for a total of 800 respondents to the NCHA II survey and 1,400 to the NCHA III survey. Most of this report will focus on the NCHA II results since it and the similar NCHA I have been the basis for highlighting trends in students' health statistics since data collection first started in 2000. Appendix B of this report will introduce some of the newer assessments contained in NCHA III. A more detailed reporting of other NCHA III results and their comparability to NCHA II results is being provided for MSU staff.

On February 10, 2020, a stratified random sample of 5,000 MSU students was sent a pre-notification email informing them that they would be receiving an e-mail invitation from ACHA to participate in the National College Health Assessment. On February 12, the same sample was sent an e-mail invitation from ACHA containing a web-link to the survey. The survey began February 12 and concluded March 1. Email



reminders were sent to non-responders on February 16, February 20, and February 25. Additional global messages encouraging participation were sent on February 14, and February 26.

A total of 852 students responded, but several were excluded from analysis because of missing data, particularly on demographic items used for weighting. The final data file contained useable responses from 846 students. The overall response rate was 17%.

The same survey is administered annually on more than 100 other campuses across the nation. ACHA makes available the results of the surveys administered across the nation so individual colleges and universities can compare their results to the nationwide results. However, the NCHA is administered at different times during the academic year, following quite varied sampling methodologies, and at a broad mix of colleges and universities. The national data sets are not weighted to correct for disproportionate sampling and non-response. At MSU, the NCHA has always been administered to probability samples during the same four-week time period of the Spring Semester and has used the same weighting approach to match the enrollment profile at the time. Consequently, the nationwide results are in fact not suitable as a basis of comparison.

The questionnaire covered a diverse set covered a diverse set of topics including perceived health status, sexual behaviors and beliefs, alcohol-tobacco-drug behavior and beliefs, injury prevention, disease prevention and screening, victimization, exercise and rest, emotional and mental health, incidents of disease or injury, incidents of stressors, sources and credibility of health information, and background questions.

The questionnaire administered in 2020 was nearly the same version of the questionnaire (NCHA II) as was administered in 2010 through 2018. This was a substantially modified version of the questionnaire administered from 2000 through 2008 (NCHA I). While many questions remained the same, some questions were added and some formerly used questions were dropped or modified.

The 2020, 2018, and 2016 version of NCHA (IIc) differed from the earlier versions of NCHA II primarily by the inclusion of questions about e-cigarettes and an expanded battery regarding sex, gender identity and sexual orientation.

This summary will report the findings of the 2020 survey. Where relevant, we will compare results to the earlier surveys to note changes in health behaviors and beliefs of MSU students over time.

Because some segments of the student body were somewhat over- or under-represented among respondents, the data set has been weighted based on gender, race/ethnicity, and academic class status so that the final weighted sample more nearly matches the proportions of these groups in the MSU student body as a whole.

Table 1 provides a demographic profile of the sample after applying weighting adjustments to make the weighted sample more proportionately representative of the MSU student body during Spring Semester 2020. The table shows the profile of the student respondents overall and among undergraduates and

among graduate/professional students. The table indicates, for example, that 24.8% of MSU students report having at least one type of disability and that the most prevalent disabilities are ADHD (8.6%), a psychiatric condition (9.5%), a chronic illness (5.0%), a learning disability (2.5%), blindness or partially sighted (2.5%), and a hearing impairment (2.0%).

The analyses summarized here are based on the 846 weighted cases. A weighted sample of this size has an overall margin of sampling error of  $\pm 3.4\%$  or less ( $\pm 3.9\%$  among undergraduates,  $\pm 6.6\%$  among graduate/professional students).

**Table 1. Profile of the Sample of NCHA II Survey Respondents (n=846) Overall, by Student Status: 2020**

Characteristic		% Overall	% Undergrads	% Grad/ Professional
Gender	Male	47.3%	48.1%	44.1%
	Female	52.7%	51.9%	55.9%
Age	18	9.8%	12.3%	0.0%
	19	17.0%	21.4%	0.0%
	20	19.8%	25.0%	0.0%
	21	17.4%	21.7%	1.2%
	22	11.2%	12.2%	7.5%
	23	6.0%	4.2%	12.7%
	24	3.7%	1.4%	12.7%
	25	2.9%	0.3%	12.7%
	26	1.8%	0.0%	8.7%
	27	1.9%	0.5%	7.5%
	28	1.4%	0.5%	5.2%
	29	1.3%	0.0%	6.4%
	30	0.5%	0.0%	2.3%
	31+	5.3%	0.6%	23.1%
Race	White (not Hispanic)	67.3%	69.5%	59.0%
	African American (not Hispanic)	6.6%	6.9%	5.6%
	Hispanic	5.2%	5.2%	5.1%
	American Indian/Alaskan	0.0%	0.0%	0.0%
	Asian/Pacific Islander	5.4%	5.2%	6.2%
	Not Reported/Other	4.4%	4.3%	4.5%
	International Student	11.1%	8.8%	19.7%
Year in School	First	14.9%	18.8%	0.0%
	Second	18.1%	22.9%	0.0%
	Third	20.8%	26.3%	0.0%
	Fourth	19.9%	25.1%	0.0%
	Fifth or more	5.4%	6.9%	0.0%
	Graduate Student/other	20.9%	0.0%	100.0%
Cumulative GPA	A	57.0%	51.5%	77.8%
	B	34.0%	38.6%	16.5%
	C	6.8%	8.4%	0.6%
	D/F	0.5%	0.6%	0.0%
	Not Applicable	1.8%	0.9%	5.1%
Full-time Student		94.8%	96.7%	87.5%

Table 1. (Continued)

Characteristic	% Overall	% Undergrads	% Grad/ Professional
Residence			
Residence Hall	33.6%	42.1%	1.1%
Fraternity/Sorority	0.6%	0.7%	0.0%
Other campus housing	3.1%	3.1%	2.8%
With Parents/Guardian	4.2%	3.7%	5.7%
Other off campus	56.8%	49.8%	83.5%
Other	1.8%	0.4%	6.8%
Member of Fraternity/Sorority	8.4%	10.0%	2.3%
Have Health Insurance			
University Plan	18.5%	8.8%	54.8%
Parents' Plan	70.0%	82.2%	24.3%
Another Plan	8.9%	6.3%	18.6%
No	1.8%	1.6%	2.3%
Not Sure	0.8%	1.0%	0.0%
Employed weekly	61.1%	58.7%	70.1%
Volunteer weekly	33.9%	33.5%	35.4%
Sexual Orientation			
Heterosexual	83.6%	83.2%	85.2%
Gay/Lesbian	5.2%	4.8%	6.8%
Bisexual	8.7%	9.1%	6.8%
Unsure	2.5%	2.8%	1.1%
Varsity Athlete	2.6%	3.2%	0.6%
Club Sport Athlete	10.6%	12.2%	4.6%
Disabilities: None	75.2%	74.6%	77.4%
ADHD	8.6%	9.0%	6.8%
Chronic illness (e.g., cancer, diabetes, etc.)	5.0%	5.0%	5.1%
Deaf/hard of hearing	2.0%	2.2%	1.1%
Learning disability	2.5%	2.7%	1.7%
Mobility/dexterity disability	1.4%	1.5%	1.1%
Partially sighted/blind	2.5%	3.0%	0.6%
Psychiatric condition	9.5%	9.0%	11.3%
Speech or language disorder	0.1%	0.2%	0.0%
Other disability	2.8%	3.1%	1.7%

## RESULTS: Perceived Health Status

Table 2 shows the percentages of respondents who rated their health as excellent, very good, good, fair or poor. The table indicates that:

- Overall, 51.1% of respondents rated their health as excellent (9.7%) or very good (41.4%). This is down from the 54.6% found in 2018 and 2016, which were also down from the results in 2014, 2012, and 2010.
- International students and domestic White students were more likely to rate their health as excellent or very good (52.9% and 54.9% respectively) than were Other domestic students (38.6%).
- There were no statistically significant differences by sex, across age groups, or between on-campus and off-campus residence.

Table 2. Percentage Distribution of Perceived Health Status of Student Respondents: 2020						
How would you describe your general health?		Excellent	Very Good	Good	Fair	Poor
Overall		9.7%	41.4%	33.9%	12.1%	2.9%
Student Status						
	Undergrad Student	9.6%	39.2%	34.8%	13.4%	3.0%
	Grad./Prof. Student	10.0%	50.0%	30.0%	7.1%	2.9%
Gender						
	Males	11.7%	43.1%	32.6%	10.7%	1.8%
	Females	8.1%	39.8%	35.0%	13.2%	3.9%
Race						
	White Domestic	10.0%	44.9%	33.2%	10.3%	1.6% *
	Other Domestic	8.0%	30.7%	40.9%	16.5%	4.0%
	International	12.6%	40.2%	24.1%	13.8%	9.2%
Age						
	18-19	8.3%	41.0%	33.6%	15.2%	1.8%
	20-21	9.3%	40.1%	36.1%	11.9%	2.6%
	22-23	13.3%	40.0%	31.1%	9.6%	5.9%
	24 or older	9.7%	47.1%	31.6%	9.7%	1.9%
Residence						
	On campus	8.3%	40.2%	34.2%	14.6%	2.7%
	Off campus	10.5%	42.0%	33.9%	10.7%	2.9%
GPA						
	A	12.6%	45.4%	28.7%	10.9%	2.4% *
	B	5.5%	36.3%	41.4%	13.2%	3.7%
	C or less	8.6%	32.8%	36.2%	19.0%	3.4%
* $p(\chi^2) < .05$						

- Students performing better academically were more likely to rate their health as excellent or very good.

Figure 1 below indicates that, although very stable for the ten-year period from 2004 to 2014, the overall percentage of MSU students rating their health as excellent or very good has continued to decline since then while the percentage rating their health as only fair or poor has increased slightly from 2014 to 2020.

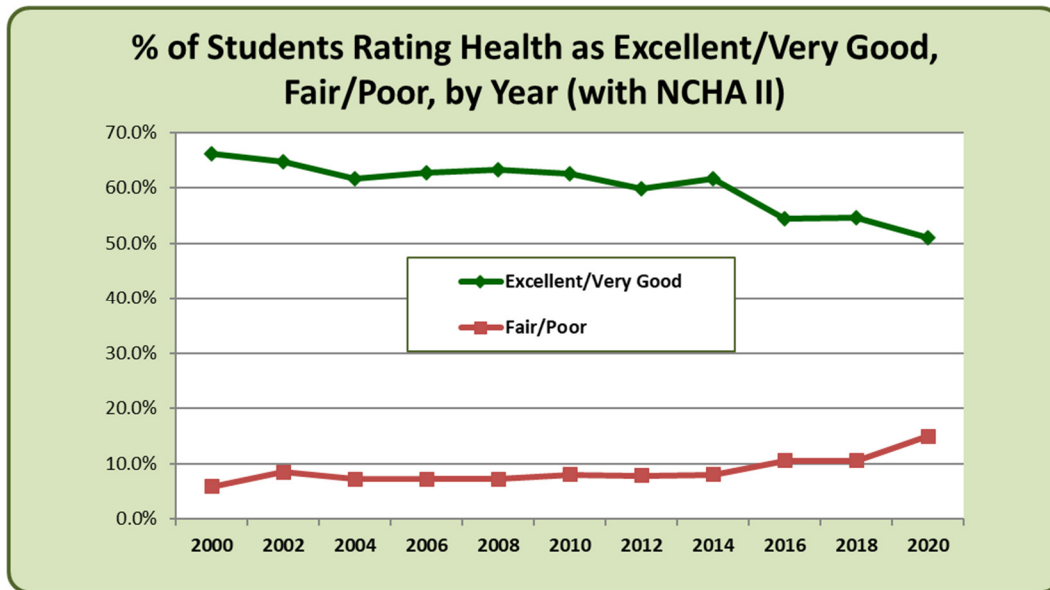


Figure 1. Percentage of Respondents Rating Own Health Excellent/Very Good, Fair/Poor 2000-2020

## RESULTS: Weight Status, Exercise and Rest

Respondents were asked to indicate their height, weight, how many days in the past week they exercised either vigorously for 20 minutes or moderately for 30 minutes, how many days they did muscle strengthening exercises, how many days in the past week they got enough sleep, and how many servings of fruits and vegetables they typically eat per day.

The respondents' heights and weights were converted into Body Mass Index (BMI) scores (kilograms/meters<sup>2</sup>) and then categorized into weight statuses with BMI scores of 25.0 - 29.9 coded as overweight and 30.0 or greater coded as obese. The results for these questions are presented in Table 3 along with the comparisons on each between males and females, domestic White and Other racial/ethnic group and international respondents, those living on campus and those living off campus, and among GPA categories.

The table indicates that:

- 35.8% of the respondents were overweight (22.7%) or obese (13.1%) based on BMI – somewhat lower than the 37.7% found in 2018, but still slightly greater than the 33.6% found in 2016, the 30.8% found in 2014, 33.4% in 2012 and the 32.5% reported in 2010.
  - Undergraduates and respondents with higher GPAs were less likely to be overweight or obese than were their counterparts.
- 63.5% of respondents indicated that they exercised three or more days during the previous week – down slightly from 66.5% in 2018 but similar to the 60.7% in 2016, but similar to the 65.3% found in 2014, 65.1% found in 2012, and the 64.9% found in 2010
  - Domestic White respondents were more likely (68.6%) than Other domestic students or international students (54.9% and 50.0% respectively) to report exercising three or more days per week.
  - Students with higher grade point averages tended to be more likely to exercise three or more days per week.
- 39.2% of the respondents did muscle strengthening or toning exercises two or more days in the previous week – down slightly from 43.1% in 2018 but very similar to the 39.1% in 2016, 38.2% in 2014, 37.8% in 2012, and 37.6% in 2010.
  - Domestic students were more likely to participate more often in muscle strengthening exercises than international students.

Health Problem	%	GENDER		RACE/ETHNICITY			STUDENT STATUS		CUMULATIVE GPA		
		Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof.	A	B	C/D/F
<b>Weight Status</b>											
Acceptable/Not Overweight	64.2%	62.6%	65.5%	66.1%	57.1%	66.3%	66.0%	57.5% *	66.0%	64.7%	42.6% *
Overweight	22.7%	25.4%	20.3%	22.7%	25.8%	16.3%	22.2%	24.7%	22.5%	23.7%	21.3%
Obese	13.1%	12.0%	14.2%	11.2%	17.0%	17.4%	11.8%	17.8%	11.6%	11.7%	36.1%
<b>Participate in vigorous exercise for 20 minutes or moderate exercise for 30 minutes . . .</b>											
0 days per week	19.0%	19.9%	18.2%	15.9%	22.5%	30.9% *	19.1%	18.8%	17.0%	20.8%	22.6% *
1-2 days per week	17.5%	14.9%	19.8%	15.5%	22.5%	19.1%	17.1%	18.8%	16.0%	17.3%	29.0%
3 or more days per week	63.5%	65.2%	61.9%	68.6%	54.9%	50.0%	63.8%	62.5%	66.9%	62.0%	48.4%
<b>Do exercises to strengthen/tone muscles. . .</b>											
0 days per week	47.6%	45.9%	49.0%	45.3%	53.3%	50.6% *	47.4%	48.6%	47.8%	45.3%	53.3% *
1 day per week	13.2%	11.2%	15.1%	12.2%	12.6%	20.2%	13.6%	11.6%	13.3%	10.9%	21.7%
2 or more days per week**	39.2%	42.9%	36.0%	42.5%	34.1%	29.2%	39.0%	39.9%	38.9%	43.9%	25.0%
Guideline for Physical Activity Met or Not [30 min. moderate activity 5+ days/week OR 20 min. vigorous activity 3+ days/week OR equivalent combination (2 days mod. = 1 day vigorous)]											
Not Met	50.5%	48.9%	51.8%	45.1%	58.6%	67.0% *	50.7%	50.0%	48.9%	50.2%	60.7%
Met	49.5%	51.1%	48.2%	54.9%	41.4%	33.0%	49.3%	50.0%	51.1%	49.8%	39.3%
<b>Get enough sleep so feel rested when wake up in the morning . . .</b>											
< 4 days per week	56.0%	49.5%	61.8% *	54.6%	66.3%	44.0% *	56.8%	53.1%	52.1%	60.8%	63.9%
4-5 days per week	31.7%	34.0%	29.7%	34.5%	22.7%	33.0%	31.3%	33.3%	35.3%	26.2%	27.9%
6-7 days per week	12.3%	16.5%	8.5%	10.9%	11.0%	23.1%	11.9%	13.6%	12.6%	12.9%	8.2%
<b>Number of servings of fruits and vegetables eat per day</b>											
None	8.0%	10.3%	6.1% *	7.6%	13.1%	2.2% *	9.7%	1.7% *	4.2%	11.5%	19.7% *
1-2	63.9%	67.5%	60.7%	61.9%	63.9%	75.3%	65.9%	56.3%	63.5%	65.3%	63.9%
3-4	23.1%	16.8%	29.0%	25.3%	20.8%	14.0%	20.2%	34.1%	25.8%	21.2%	9.8%
5 or more	4.9%	5.5%	4.3%	5.3%	2.2%	8.6%	4.2%	8.0%	6.5%	2.1%	6.6%

\*  $p(\chi^2) < .05$ 

\*\* Note: This was reported for 0 days, 1-2 days, 3 or more days in the tables for previous years' surveys. The category groupings were revised this year to be consistent with CDC guidelines of muscle strengthening exercises 2 or more days per week.

- Roughly half (49.5%) of all students met the guideline for aerobic physical activity (a combination of vigorous and moderate exercising) – slightly lower than the 52.3% in 2018, but within the range of the 45.6% in 2016 and 51.4% found in 20014.
  - White domestic students were more likely than their counterparts to meet the physical activity guideline.
- More than half the respondents (56.0%) reported getting sufficient sleep fewer than four days out of the previous seven, virtually the same as in 2018 (56.7%) which was up slightly from the 52.7% in 2016 and 52.3% in 2014.
  - As in the five prior surveys, females were less likely than males to report getting adequate sleep six or seven days in the previous week.
  - International students were more likely than domestic students to report getting adequate sleep six or seven days in the previous week.

- Only one in twenty respondents (4.9%) reported eating five or more servings of fruits and vegetables per day, the minimum recommended for good health by nutritionists – lower than the 6.2% found in 2018, 5.7% in 2016, 6.4% in 2014, and 5.9% found in both 2012 and 2010. More than seven out of ten (71.9%) reported eating two or fewer servings per day (vs. 63.6% in 2018, 66.5% in 2016, 63.5% in 2014, 65.0% in 2012, and 65.5% in 2010).
- Males tended to report eating fewer servings of fruits and vegetables than females, but about 95% of both fell short of the five per day recommendation
- International respondents were somewhat more likely to report eating more servings of fruits and vegetables per day than were their domestic student counterparts.
- Graduate/professional students were more likely than undergraduates to report eating greater numbers of servings of fruits and vegetables daily.
- Those with higher GPAs were more likely to report eating more servings of fruits and vegetables daily than were their counterparts with lower GPAs.

Figure 2 shows the trends for these measures from 2000 to 2020.

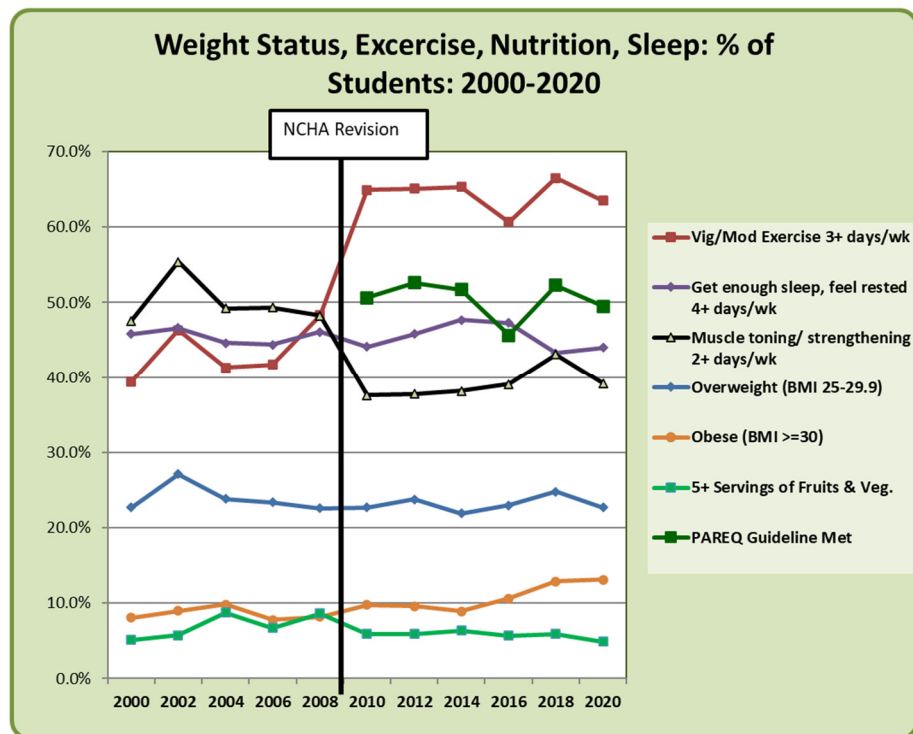


Figure 2. Weight, Exercise, Sleep and Nutrition Status: 2000 to 2020



The substantial increase in the percentage of students who reported exercising at least moderately for 3 or more days a week from 2008 to 2010 is undoubtedly an artifact of a change in the questionnaire in 2010. Two separate questions on moderate activities and vigorous activities were combined to produce a single exercise measure analogous to the one question used from 2000 to 2008, but the combined response appears to result in a greater measurement. The results were very similar from 2010 to 2020. The change in measurement of exercise apparently came at the expense of weight training which showed a substantial decline from 2008 through 2010 but was also relatively unchanged between 2010 and 2020.

The question about muscle strengthening/toning in 2010 was also quite different than the question in the earlier questionnaire. Starting in 2010, the question specified a number of different exercises and a number of repetitions for each, whereas the earlier question left the number of exercises and repetitions unspecified. Therefore, we suspect most of the substantial drop in the percentage doing this type of exercise two or more days a week reflects the effect of the change in question wording.

There was no change in the question wording regarding days of adequate sleep. Figure 2 shows only small fluctuations in the percentage of students who reported getting adequate, restful sleep most nights of the week from 2000 through 2016 but a relatively greater decline in 2018 and 2020.

Figure 2 also indicates that the percentage of the students who were obese or overweight and the percentage who reported consuming five or more servings of fruits and vegetables have been relatively stable over the past eighteen years, although the percentages that were obese has been increasing since 2014.

The questionnaire included several questions regarding how respondents perceive their own weight status, what they were trying to do about their weight, and if they had used any of several weight loss strategies in the previous 30 days. Table 4 shows the percentages of respondents giving each of the possible answers and then compares the percentage distributions of responses among respondents categorized by their BMI-based weight status.

The table indicates that:

- 90.3% of those in the “Not Overweight” category described themselves as either about the right weight or underweight – virtually the same as in 2018 (90.6%) – while 9.7% of them perceived themselves to be at least somewhat overweight.
- About a quarter (23.6%) of those classified as overweight according to BMI indicated their weight was about right – lower than the corresponding results in 2018 and 2016.
- While 29.4% of those classified as obese described themselves as ‘very overweight’, nearly two-thirds characterized themselves as ‘slightly overweight’.
- Overall, 51.8% of respondents said they were trying to lose weight, but this percentage increases to 78.8% among those classified as overweight, and to 89.9% among those classified as obese – both

greater than the corresponding 2018 and 2016 results. Similar to the results in 2018 and 2016, about a third (34.8%) of those who were not overweight or obese indicated that they were also trying to lose weight.

Table 4. Percentage Distribution of Perceived Weight Status, Diet and Exercise Behavior, by BMI-Based Weight Status: 2020				
ITEM	% OVERALL	BMI-Based Weight Status		
		Not Overweight	Overweight	Obese
How describe own weight				
Very underweight	1.5%	2.2%	0.0%	0.0% *
Slightly underweight	9.8%	14.9%	1.0%	0.0%
About the right weight	53.0%	73.1%	23.6%	6.4%
Slightly overweight	31.8%	9.7%	74.9%	64.2%
Very overweight	3.9%	0.0%	0.5%	29.4%
Currently trying to . . .				
Doing nothing about weight	12.5%	15.2%	7.4%	7.3% *
Stay the same weight	22.6%	31.1%	10.1%	2.8%
Lose weight	51.8%	34.8%	78.8%	89.9%
Gain weight	13.1%	18.9%	3.7%	0.0%
Within last 30 days, did . . .				
Exercise to lose weight	55.4%	45.9%	71.8%	76.6% *
Diet to lose weight	45.3%	35.3%	64.0%	63.2% *
Vomit or take laxatives to lose weight	2.3%	2.4%	2.1%	2.9%
Take diet pills to lose weight	1.9%	0.9%	4.2%	2.9% *
None of the above	38.8%	49.1%	21.7%	15.1% *
* $p(\chi^2) < .05$				

- Among those who were classified as overweight, more than seven out of ten (71.8%) said they had been trying to lose weight in the previous month by exercising, while a little more than six out of ten (64.0%) said they had been trying to lose weight by dieting. Among those classified as obese, more than six out of ten (63.2%) said they had been trying to lose weight by dieting and more than three-quarters were trying to lose weight by exercising (76.6%).
- Among those classified as obese, 15.1% said they had not been trying to lose weight in any of the four methods listed – down from 22.4% in 2018.

The questionnaire included several additional questions regarding sleep. Respondents were asked how much of a problem they had in the previous seven days with sleepiness during the daytime. One in ten students (10.5%) said it was ‘not a problem at all,’ while half (50.7%) said it was ‘a little problem.’ One fifth (20.6%) said it was ‘more than a little problem,’ 12.4% said it was ‘a big problem’ and 5.9% said it was ‘a very big problem’ – similar to results in previous surveys. As in earlier years’ surveys, females were somewhat more likely to report sleep problems than their male counterparts.

Respondents were asked how many days of the previous seven they awakened too early in the morning and could not get back to sleep, felt tired or dragged out or sleepy during the day, or went to bed because they just could not stay awake any longer, or had an extremely hard time falling asleep. On average, students reported:

- 1.25 days in the previous seven when they awakened too early and could not get back to sleep – 47.9% (compared to 56.1% in 2018, 56.2% in 2016, 54.8% in 2014 and 58.3% in 2012) reported no such days, 21.1% reported only one day, but 10.9% reported four or more days – up from the 7.5% found in 2018, 7.0% in 2016, 8.0% in 2014, 6.3% in 2012 and 8.1% in 2010.
- 3.2 days in which they felt tired, dragged out, or sleepy during the day – very similar to the 2018 finding. One in eleven (9.4%) reported no such days – compared to 8.6% in 2018, 11.4% in 2016 and 9.3% in 2014. One in eight (13.5%) reported one such day, but 40.8% reported four or more such days in the previous week – roughly the same as in 2018.
- 1.7 days in which they went to bed because they just could not stay awake any longer – the same as in most previous surveys. Nearly four out of ten (38.4%) reported there were no such days, 19.5% reported there was only one, 13.2% reported there were two days, and 28.9% reported there were three or more such days.
- 1.7 days in the previous seven when they reported having an extremely hard time falling asleep – similar to the prior surveys. Four out of ten (41.0%) reported there were no such days, 21.4% reported one day, 12.6% reported two days, and the remaining 25.0% reported there had been three or more such days in the previous week – an increase from prior surveys.

Examining the occurrence of these sleep problems among various types of students, the analysis indicated that, on average:

- Females reported more days than males in which they awakened too early, felt tired, dragged out or sleepy during the day, and more days that they had to go to bed because they just could not stay awake – roughly the same differences found in the prior surveys.
- There were no statistically significant differences between undergraduates and graduate/professional students on any of these sleep issues; neither were there differences across age groups.
- Compared to domestic students, international students reported fewer days in which they felt tired, dragged out or sleepy during the day.
- Students living off campus reported more days the felt tired, dragged out, or sleepy during the day than their on-campus counterparts.

- As in previous surveys, those with higher GPAs reported fewer days in which they awakened too early, of feeling tired during the day, having to go to bed because they could not stay awake, and having extreme difficulty falling asleep problems than those with lower GPAs.
- Members of fraternities or sororities reported more days than their non-member counterparts when they awoke too early and couldn't get back to sleep, went to bed because they just couldn't stay awake any longer, and had extreme difficulty falling asleep.

## RESULTS: Injury Prevention

Respondents were asked to indicate how often within the last twelve months they wore seatbelts when riding in a car or wore a helmet when bicycling, motorcycling, or inline skating.<sup>1</sup> Table 5 shows the percentages of respondents who indicated having taken these precautions to prevent injury and how often they did so.

Table 5 indicates that:

- Nearly all students (99.6%) indicated having ridden in a car in the past year. Of those who did, only 2.6% of these said they wore a seatbelt less than most of the time – very similar to the results of prior surveys; 81.0% said they always wear a seatbelt when riding in a car – slightly less than reported in 2018 and 2016, but similar to the results reported in 2014, 2012, and 2010.

Table 5. Percentage of Respondents Who Wore Protective Equipment to Prevent Injury During Last School Year (Of Those Engaging in the Activity): 2020					
Within last school year, how often did you . . .	Never	Rarely	Sometimes	Most of the Time	Always
Wear a seatbelt when rode in a car	0.2%	0.7%	1.7%	16.4%	81.0%
Wear a helmet when rode a bicycle	55.2%	17.3%	9.2%	6.0%	12.3%
Wear a helmet when rode a motorcycle	21.1%	8.5%	11.3%	7.0%	52.1%
Wear a helmet when inline skating	57.5%	9.8%	8.5%	5.9%	18.3%
* $p(\chi^2) < .05$					

<sup>1</sup> In the questionnaire administered prior to 2010, these questions referred to 'within the last school year' rather than the whole past year as the questions did beginning in 2010 so some difference in responses to those collected prior to 2010 would be reasonable to expect.

- Six out of ten respondents (61.6%) – about the same as in the three previous surveys – indicated they had ridden a bicycle during the past year. Of these, 55.2% indicated that they never wear a helmet – down from the 57.6% found in 2018, the 62.6% found in 2016, 65.8% in 2014, and 67.3% in both 2012 and 2010 – i.e., bicycle helmet use has been increasing.
- One in six (16.9%, about the same as in 2018 and 2016) reported riding a motorcycle in the past year. Of those who did, barely half (52.1%) said they always wear a helmet, while 21.1% reported never wearing a helmet. The percentage always wearing a helmet is down from 25.9% in 2018, 66.0% in 2016, 74.0% in 2014 and 76.9% in 2012. The percentage never wearing a helmet is substantially greater than in prior years. After the 2012 survey, Michigan signed a bill into law making it legal to ride without wearing a helmet. The change in the law has resulted in the decreasing use of helmets among MSU students who ride motorcycles.
- 18.1% of all respondents indicated they had been inline skating in the past year. Of these, 63.8% reported that they never wore a helmet – relatively similar to the findings from 2012 through 2018 given the small numbers of inline skaters. In 2020, 18.3% of inline skaters said they always wear a helmet which, again, is similar to the findings from 2012 through 2018 given the small number of inline skaters in the samples.

Figure 3 shows the changes in the students' use of the protective equipment for these activities from 2000 to 2020. The figure indicates that there has been a general, gradual increase in the percentage of students who:

- Always wear a seatbelt when riding in a car,
- Wear a helmet most or all of the time when riding a motorcycle until the law changed, then sharply declined,
- Wear a helmet most or all of the time when riding a bicycle and when inline skating.

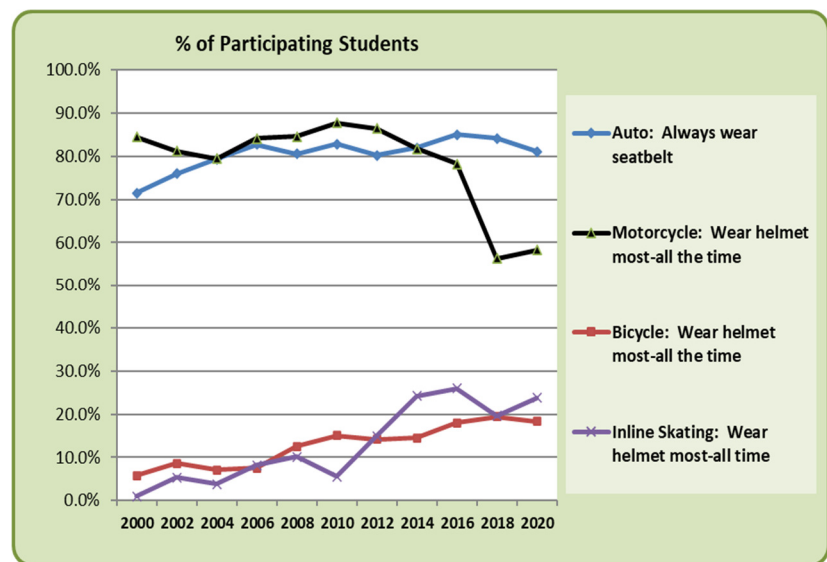


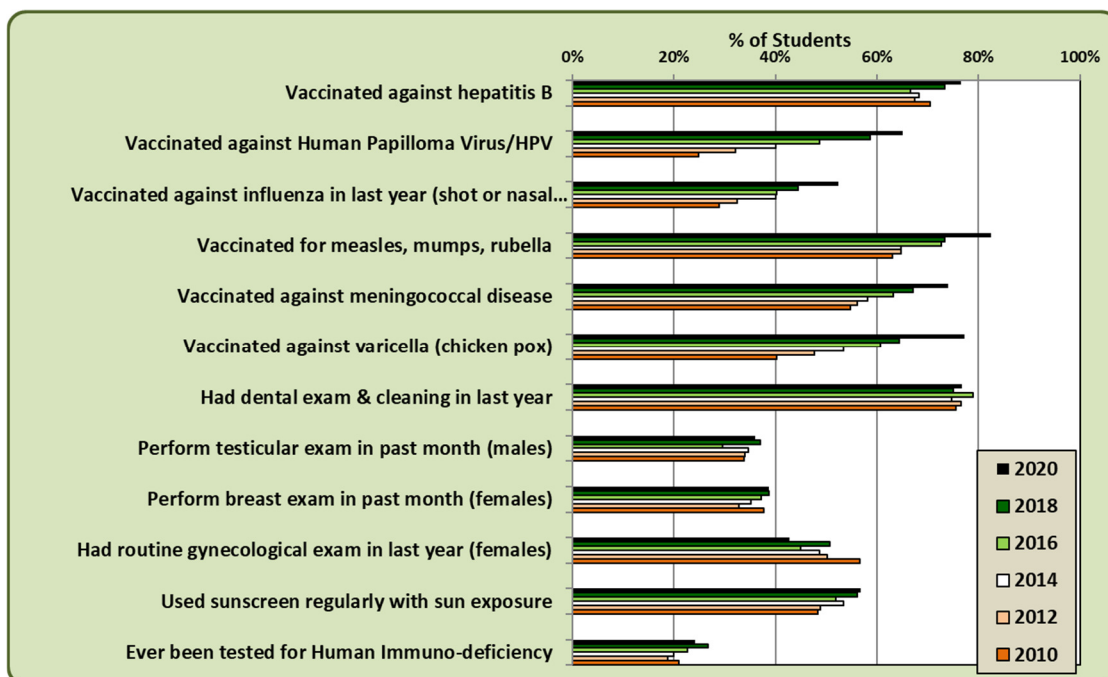
Figure 3. Student Use of Protective Equipment to Prevent Injuries: 2000 to 2020

## RESULTS: Disease Prevention and Screening

The questionnaire asked respondents to indicate whether or not they had been vaccinated against various diseases and whether or not they had recently had preventive health screening exams such as dental exams and cleaning, breast exams (females only), gynecological exams (females only), testicular exams (males only), blood pressure checks, cholesterol checks, or used sunscreens. Figure 4 shows the differences in the results for 2020 compared to 2018, 2016, 2014, 2012 and 2010.

Figure 4 indicates that:

- The percentages of students vaccinated against the Human Papilloma Virus (HPV), against influenza, against measles, mumps and rubella, against meningococcal disease, and against varicella have all gradually increased from 2010 to 2020 – especially the vaccination rates for HPV and varicella.
- The percentages of students vaccinated against hepatitis B rebounded in 2020 and 2018 to 76.6% and 73.3% respectively after having declined from 2010 to 2016 (i.e., 66.6% in 2016 vs. 70.5% in 2010).
- The percentages having a dental exam and cleaning in the past year, performing testicular exams in the past month, performing a breast exam in the past month, and having been tested for HIV have all fluctuated some from survey to survey but, overall, have changed little.



**Figure 4. Percentage of Respondents Who Reported Having Done Various Disease Prevention, Early Detection Procedures: 2020 vs. 2018 vs. 2016 vs. 2014 vs. 2012 vs. 2010**

- The percentages of female students who had a routine gynecological exam in the last year had steadily declined from 2010 to 2016, increased to 50.8% in 2018, and then resumed its decline to 42.8% in 2020.
- The percentages of respondents that used sunscreen regularly with sun exposure continued to increase gradually.

Table 6 shows the percentage of all respondents who said that they had done each of these and the percentage who indicated not knowing if they had or not. The table also compares the percentages of respondents who said they had done each of these across various demographic groups of respondents. The table indicates that:

- Females were more likely than males to report having been vaccinated against hepatitis B, HPV, meningitis and varicella, more likely to report using sunscreen regularly, and also more likely to report having ever been tested for HIV.
- International students were less likely to report having received any of the vaccinations or performing the screening tests than domestic students, except for being tested for HIV. White domestic respondents were more likely than Other domestic respondents to report having been vaccinated against meningococcal disease, measles/mumps/rubella, and varicella, more likely to report having had a dental exam in the last year, to perform monthly breast exams, to have had a gynecological exam in the last year, and to use sunscreen.
- Graduate students were more likely than undergraduates to report having been vaccinated against influenza, more likely to have been tested for HIV, and more likely to have had a routine gynecological exam, but they were less likely than undergraduates to have been vaccinated against HPV, or varicella, and less likely to have had a dental exam and cleaning in the past year.
- Respondents with higher GPAs were more likely than their lower GPA counterparts to report being vaccinated against influenza and using sunscreen regularly.

**Table 6. Percentage of Respondents Who Report Having Done Various Disease Prevention or Early Detection Procedures, by Background: 2020**

Prevention/Early Detection Step	% Who Answered Yes											
	Yes **	Don't Know	GENDER		RACE/ETHNICITY			STUDENT STATUS		CUMULATIVE GPA		
			Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof.	A	B	C/D/F
Vaccinated against hepatitis B	76.6%	13.0%	71.3%	81.3% *	78.6%	75.1%	65.9% *	76.7%	75.6%	78.0%	73.3%	78.3%
Vaccinated against Human Papilloma Virus/HPV	65.1%	13.3%	55.5%	73.5% *	68.3%	67.8%	39.8% *	67.6%	55.2% *	63.3%	68.7%	65.6%
Vaccinated against influenza in last year (short or nasal mist)	52.4%	4.5%	54.2%	50.7%	53.9%	55.2%	37.4% *	49.9%	61.4% *	55.2%	50.9%	34.4% *
Vaccinated for measles, mumps, rubella	82.6%	9.0%	80.5%	84.4%	88.2%	72.9%	65.9% *	81.6%	86.4%	83.4%	81.9%	80.3%
Vaccinated against meningococcal disease	74.0%	15.4%	68.3%	78.8% *	78.3%	71.3%	52.2% *	75.4%	68.8%	73.7%	75.3%	73.8%
Vaccinated against varicella (chicken pox)	77.3%	8.8%	73.9%	80.4% *	80.6%	74.0%	63.7% *	78.8%	71.2% *	77.2%	77.0%	80.3%
Had dental exam & cleaning in last year	76.7%	1.6%	74.9%	78.2%	82.0%	69.1%	58.2% *	79.5%	66.1% *	77.3%	77.7%	73.8%
Perform testicular exam in past month (males)	36.0%	4.3%	36.0%	--	41.8%	41.4%	15.7% *	37.2%	36.8%	34.3%	39.5%	45.7%
Perform breast exam in past month (females)	38.7%	0.6%	--	38.7%	42.2%	36.7%	20.3% *	37.7%	41.9%	35.9%	44.5%	32.0%
Had routine gynecological exam in last year (fem)	42.8%	1.0%	--	50.8%	55.9%	44.9%	30.4% *	46.0%	64.8% *	49.0%	52.1%	54.0%
Used sunscreen regularly with sun exposure	56.8%	1.6%	46.4%	65.1% *	66.3%	34.2%	39.9% *	53.8%	63.2% *	59.7%	53.7%	41.7% *
Ever been tested for Human Immuno-deficiency Virus/HIV	24.2%	5.2%	19.7%	33.1% *	25.5%	30.1%	27.3%	22.8%	38.9% *	26.8%	24.8%	32.1%
* $p(\chi^2) < .05$												

\*\* The percentage who said they had not done each of these is not reported in the table but can easily be calculated by summing the percentage who said they had done it and the percentage who said they did not know if they had done it and then subtracting this sum from 100%. The result is the percentage of respondents who said they had not done this.



## RESULTS: Alcohol, Tobacco, and Other Drugs

**FREQUENCY OF USE.** The questionnaire included a series of questions on the use of tobacco, alcohol and other drugs. Respondents were asked to report the number of days they had used each of eighteen different types of substances over the previous 30 days. Table 7 shows the percentage distribution of responses for each of these eighteen types of substances. The table indicates that:

- Eight out of ten (80.4%) of the respondents reported never having smoked cigarettes at all – virtually the same as in 2018 and up from 75.9% in 2016, 68.3% in 2014, 64.6% in 2012 and 61.8% in 2010 – and another 13.8% reported not having smoked in the previous 30 days; only 1.7% of respondents claimed to have smoked cigarettes 6 or more days out of the previous 30 – continuing a steady decline since 2010.
- One in fifty (1.7%) respondents claimed to have smoked tobacco from a hookah (i.e., water pipe) in the past month – about the same as in 2018 and still down from 5.1% in 2016, 10.6% in 2014.
- More than eight out of ten respondents (83.1%) said they had never

**Table 7. Percentage of Respondents Who Used Various Kinds of Drugs, Alcohol or Tobacco in the Past 30 Days: 2020**

In past 30 days, on how many days did you use:	Never	Not in Past Month	1-2 Days	3-5 Days	6 or More Days
Cigarettes	80.4%	13.8%	3.8%	0.3%	1.7%
Tobacco from a Hookah	85.2%	13.1%	1.2%	0.2%	0.2%
e-Cigarettes	66.8%	16.7%	4.4%	2.3%	9.8%
Cigars	83.1%	14.3%	2.4%	0.1%	0.0%
Smokeless tobacco	91.3%	6.7%	0.4%	0.3%	1.3%
Alcohol (beer, wine, liquor)	16.3%	10.6%	19.9%	20.2%	33.0%
Marijuana	53.7%	22.0%	7.3%	3.9%	13.0%
Cocaine	95.1%	4.3%	0.5%	0.0%	0.1%
Methamphetamines	98.6%	1.3%	0.1%	0.0%	0.0%
Other amphetamines	94.9%	3.6%	0.5%	0.0%	1.0%
Sedatives	96.4%	2.7%	0.7%	0.1%	0.1%
Hallucinogens	92.6%	5.8%	1.4%	0.1%	0.1%
Steroids	99.0%	0.8%	0.1%	0.0%	0.1%
Opiates	98.6%	1.1%	0.2%	0.0%	0.1%
Inhalants	97.8%	2.0%	0.1%	0.0%	0.1%
MDMA	95.4%	4.3%	0.2%	0.0%	0.1%
Other club drugs	98.0%	1.9%	0.0%	0.0%	0.2%
Other illegal drugs	96.5%	3.2%	0.1%	0.1%	0.1%

smoked cigars and 91.3% said they have never used smokeless tobacco – both similar to 2018 findings. Only 2.0% of respondents claimed to have used smokeless tobacco in the previous 30 days – virtually the same as in 2018 and 2016, which was down from 5.9% in 2014 – while 2.5% claimed to have smoked cigars at least once in this time period – continuing a downward trend since 2012.

- A question about smoking e-cigarettes had been added to the NCHA questionnaire in 2016. In 2020, 66.8% of respondents said they had never smoked an e-cigarette – down from 77.5% in 2018 and 82.4% in 2016, while the percentage that reported having smoked at least one during the previous month increased to 16.6% from 13.3% in 2018 and 6.1% in 2016. Furthermore, six out of ten of these respondents – 9.8% of all respondents (compared to 6.5% in 2018, 3.0% in 2016) – reported smoking e-cigarettes six or more days in the past month.
- By contrast, 16.3% said they had never drunk alcohol – virtually the same as the 16.9% in 2018, and slightly lower than the 17.8% in 2016 and the 18.7% in 2014, which were up slightly from 14.7% in 2012. Another 10.6% reported they had not drunk alcohol in the previous 30 days – also similar to the results of the three prior surveys. However, a third (33.0%) claimed to have drunk alcohol on six or more of the previous 30 days – virtually the same as in 2018 and 2016, continuing the decline from 38.1% in 2012 and 39.3% in 2010.
- 53.7% claimed never to have used marijuana – down from the 59.7% in 2018, 62.5% in 2016, 58.9% in 2014, 58.5% in 2012, and 61.0% in 2010 – while another 22.0% reported not having used it in the previous month; however, 13.0% reported having used it on six or more days in the previous month – up appreciably from the 7.4% found in 2018 but less so from the 8.9% in 2016 and 11.0% in 2014 which were up slightly from 9.9% in 2012 and 8.4% in 2010.
- 95.1% of respondents claimed to have never used cocaine – up again from the 93.7% in 2018 and similar to the 96.0% reported in 2016, 2014 and 2012 – and 0.6% reported using cocaine in the previous month – similar to 2016.
- 1.0% or fewer of respondents reported having used methamphetamines, steroids, opiates, sedatives, MDMA, inhalants or some other illegal drug in the previous month; less than 2% reported having used hallucinogens or other amphetamines in the previous month.

Table 8 shows the overall percentages of respondents who reported using these various drugs one or two days in the previous month or three or more days. The table also compares the percentages of respondents

**Table 8. Percentage of Respondents Who Used Various Drugs, Alcohol or Tobacco in Past 30 Days, by Background: 2020**

Substance	% 1-2 Days	% 3 or More Days	% Who Answered 1 or More Days									
			GENDER		RACE/ETHNICITY			RESIDENCE		CUMULATIVE GPA		
			Male	Female	White Domestic	Other Domestic	Internatl	On Campus	Off Campus	A	B	C/D/F
Cigarettes	3.8%	2.0%	7.8%	4.1% *	6.9%	1.6%	7.5% *	2.3%	7.9% *	4.2%	8.4%	6.7%
Tobacco from a hookah	1.2%	0.4%	1.8%	1.4%	1.9%	1.6%	0.0%	1.9%	1.5%	1.0%	2.4%	3.3%
e-Cigarettes	4.4%	12.2%	19.5%	13.8% *	20.4%	7.1%	11.7% *	17.8%	15.8%	12.8%	21.7%	23.3% *
Cigars	2.4%	0.1%	5.1%	0.4% *	3.7%	0.6%	0.0% *	2.0%	2.8%	1.0%	5.3%	1.6% *
Smokeless tobacco	0.4%	1.6%	4.1%	0.2% *	2.3%	1.7%	2.2%	2.3%	1.9%	0.8%	2.8%	8.2% *
Alcohol (beer, wine, liquor)	19.9%	53.1%	71.3%	74.7%	81.8%	60.7%	44.1% *	59.4%	81.0% *	72.1%	74.7%	77.0%
Marijuana	7.3%	16.9%	25.1%	23.5%	27.1%	23.5%	8.5% *	21.9%	25.6%	18.1%	31.6%	39.3% *
Cocaine	0.5%	0.1%	0.5%	0.7%	0.9%	0.0%	0.0%	0.3%	0.9%	0.6%	0.7%	0.0%
Methamphetamines	0.1%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.2%	0.0%	0.3%	0.0%
Other amphetamines	0.5%	1.0%	1.5%	1.6%	1.6%	2.2%	0.0%	1.3%	1.7%	0.4%	1.7%	9.7% *
Sedatives	0.7%	0.2%	1.0%	0.7%	1.4%	0.0%	0.0%	0.6%	1.1%	0.4%	2.1%	0.0%
Hallucinogens	1.4%	0.2%	2.0%	1.1%	1.9%	1.1%	0.0%	2.6%	0.9%	0.6%	3.1%	0.0% *
Steroids	0.0%	0.2%	0.0%	0.4%	0.4%	0.0%	0.0%	0.3%	0.2%	0.2%	0.3%	0.0%
Opiates	0.0%	0.3%	0.5%	0.2%	0.4%	0.0%	0.0%	0.0%	0.4%	0.4%	0.3%	0.0%
Inhalants	0.1%	0.1%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.4%	0.0%	0.7%	0.0%
MDMA	0.2%	0.1%	0.0%	0.7%	0.4%	0.5%	0.0%	0.3%	0.4%	0.2%	0.7%	1.6%
Other club drugs	0.0%	0.2%	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	0.2%	0.2%	0.3%	0.0%
Other illegal drugs	0.1%	0.2%	0.3%	0.2%	0.4%	0.0%	0.0%	0.6%	0.2%	0.2%	0.7%	0.0%
* $p(\chi^2) < .05$												

using these drugs one or more days by gender, race/ethnicity, campus residence, and cumulative GPA. The table indicates that:

- Males were much more likely than females to report smoking cigarettes, cigars, and e-cigarettes, using smokeless tobacco.
- Domestic White respondents were more likely to report drinking alcohol, and smoking cigars, e-cigarettes and marijuana than their domestic Other and international counterparts; Other domestic respondents were less likely than their counterparts to report smoking cigarettes.
- Those living off campus were more likely than their on-campus counterparts to have smoked cigarettes and consumed alcohol.
- Those with “A” GPAs were less likely than those with lower GPAs to report having smoked e-cigarettes, to have used marijuana, and other amphetamines in the previous month.

The questionnaire asked respondents to indicate what percentage of students at MSU used cigarettes, alcohol, and marijuana within the previous 30 days. On average, respondents estimated that 23.4% of students smoked cigarettes (virtually the same as in 2018, but down from 27.3% in 2016, 29.7% in 2014 and 33.0% in 2012), that 69.3% drank alcohol (virtually the same as in 2018, 2016, 2014 and 2012), and that 46.6% smoked marijuana (slightly greater than the 42.4% found in 2018, 39.6% in 2016, 36.6% in 2014 and the 35.4% in 2012).

As Table 9 indicates, 66.8% of students reported believing that the typical student smoked cigarettes in the previous month while only 5.8% of students actually did. Similarly, 90.9% of students reported believing the typical student smoked marijuana in the previous month, while only 24.8% actually reported doing so. That is, in both of these cases, the ‘typical’ student did not smoke cigarettes or marijuana so students over-estimated the prevalence substantially for both. In the case of alcohol consumption, 96.4% of students believed the typical student drank in the previous month, while 73.1% of students actually reported doing so. In this case, the ‘typical’ student did drink.

Respondents were also asked to indicate whether they thought the “typical” student at MSU had, in the previous month, used each of these substances daily, one or more days, or not at all. Table 9 shows the results for these two sets of questions. Table 9 also indicates the percentage of respondents who believed that the “typical” student used each of the drugs more often than they did personally. The table indicates that:

- For all types of substances, 38-86% of respondents indicated thinking that “typical” students use the substance more frequently than they do themselves – not only than themselves, but also more than the actual prevalence of use among all students, i.e., they substantially over-estimate how common use of these substances really is.

**Table 9. Percentage of Respondents Who Used Various Kinds of Drugs, Alcohol or Tobacco in the Past 30 Days and the Percentage Who Believe Typical Students Used Various Kinds of Drugs, Alcohol or Tobacco in Past 30 Days: 2020**

	OVERALL						
	In past 30 days, on how many days did you use:			How often do you think typical students used:			% Who Perceive Typical Use > Own Use
	Never, Not in Past 30 days	1 or More Days	Daily	Never, Not in Past 30 Days	1 or More Days	Daily	
Cigarettes	94.2%	5.0%	0.8%	33.2%	60.5%	6.3%	80.8%
Tobacco from a Hookah	98.4%	1.5%	0.1%	41.0%	56.2%	2.7%	74.2%
eCigarettes	83.4%	12.4%	4.1%	11.6%	64.5%	23.9%	83.5%
Cigars	97.4%	2.6%	0.0%	50.1%	47.8%	2.1%	67.9%
Smokeless tobacco	98.0%	1.4%	0.6%	48.9%	47.9%	3.3%	69.1%
Alcohol (beer, wine, liquor)	26.9%	71.8%	1.3%	3.6%	84.8%	11.6%	73.7%
Marijuana	75.8%	20.3%	3.9%	9.1%	77.3%	13.6%	81.9%
Cocaine	99.4%	0.6%	0.0%	59.1%	39.7%	1.2%	59.4%
Methamphetamines	99.9%	0.1%	0.0%	77.7%	21.5%	0.8%	39.3%
Other amphetamines	98.5%	0.9%	0.6%	67.7%	31.1%	1.2%	49.1%
Sedatives	99.1%	0.8%	0.1%	65.8%	33.8%	0.4%	50.9%
Hallucinogens	98.5%	1.5%	0.1%	62.0%	37.6%	0.4%	57.4%
Steroids	99.8%	0.1%	0.1%	68.0%	30.9%	1.1%	49.4%
Opiates	99.7%	0.2%	0.1%	77.8%	21.6%	0.6%	38.0%
Inhalants	99.8%	0.1%	0.1%	78.8%	20.8%	0.4%	39.6%
MDMA	99.7%	0.2%	0.1%	67.1%	32.7%	0.2%	55.6%
Other club drugs	99.8%	0.1%	0.1%	72.7%	26.9%	0.5%	45.6%
Other illegal drugs	99.7%	0.2%	0.1%	70.3%	29.0%	0.8%	51.7%

- Roughly three-quarters or more indicated thinking that typical students drink, or smoke cigarettes, e-cigarettes, or marijuana more than they do personally.
- Among all of the illegal substances (except marijuana), more than 95% of students reported not having ever tried, yet 40-60% of students indicated thinking that typical students had tried them or used them recently.
- While roughly 1% of respondents reported drinking alcohol daily in the previous month, more than 11% of respondents believed that the typical students drank daily.

**UNPRESCRIBED USE OF PRESCRIPTION DRUGS.** Additionally, the questionnaire asked respondents to indicate if, in the previous twelve months, they had taken any of several prescription drugs that were not prescribed to them. Among all respondents, 3.4% reported having taken an antidepressant (e.g., Celexa, Lexapro, Prozac, Wellbutrin, Zoloft), 1.4% reported having taken an unprescribed erectile dysfunction drug (e.g., Viagra, Cialis, Levitra), 2.9% reported having taken an unprescribed pain killer (e.g., OxyContin, Vicodin, Codeine), 2.4% reported having taken an unprescribed sedative (e.g., Xanax, Valium), and 7.3% reported having taken an unprescribed stimulant (e.g., Ritalin, Adderall).

Figure 5 shows the findings for each of these across the six surveys since 2010. The figure indicates that there has been virtually no change since 2010 in the percentages of students who reported using antidepressants, erectile dysfunction medications or sedatives. However, the figure also shows that there have been declines in the percentages who reported using stimulants and pain killers since 2010.

Nearly nine out of ten (88.3% – up slightly from 87.1% in 2018 and from 81.6% in 2010) reported having taken none of these types of drugs without a prescription in the previous year, while 9.2% reported having taken just one of these types. This represents a 37% reduction in the prevalence of prescription drug misuse since 2010.

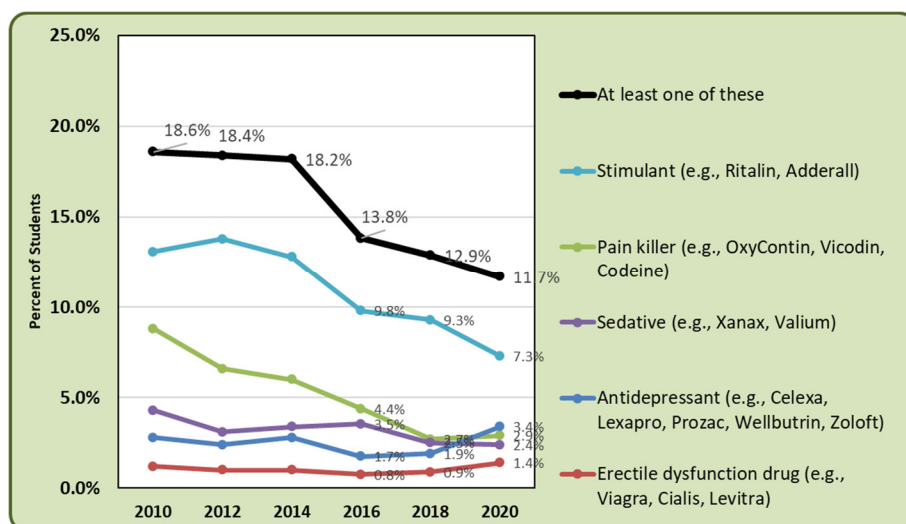
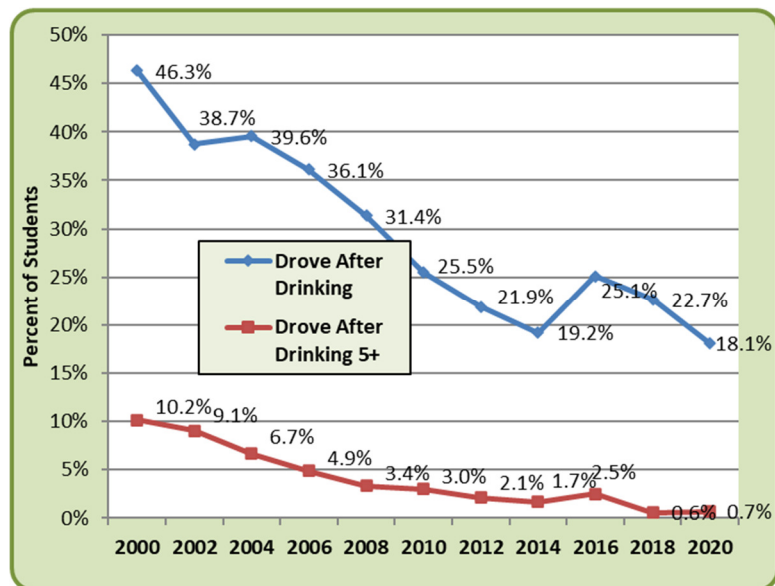


Figure 5. Percentage Misusing Prescription Drugs: 2010-2020

**ALCOHOL USE AND DRIVING.** The questionnaire asked respondents if, in the previous 30 days, they had driven after drinking any alcohol and if they had driven after having had five or more drinks. Figure 6 below shows the percentage of students in each of the surveys from 2000 to 2020 who said they had done each of these at least once in the previous month (excluding the students who said they do not drink or do not drive).



**Figure 6. Percentage Who Drove After Drinking, Consuming 5 or More Drinks: 2000 to 2020**

- 18.1% of the respondents (who drive and who drink) reported having driven after drinking at least some alcohol at least once in the previous 30 days – this is down from 22.7% in 2018 and 25.1% in 2016, and less than half the 46.3% in 2000.
- Less than 1% of the respondents who drink and who drive reported driving after having five or more drinks at least once in that time, continuing the downward trend from the 10.2% in 2000 – a 93% decline.

In 2020, among respondents who drive and who drink, there were no significant differences between males and females.

Graduate/professional students were more likely to drive after drinking than were undergraduates (38.2% vs. 9.8%) partly because more of them live off campus. While the percentage of graduate/professional students who drove after drinking has changed little since 2014, the percentage of undergraduates who did so has declined more substantially from 14.3% in 2014. Those who live off campus were more likely to drive after drinking than those who live on campus (24.1% vs. 3.8% – both down from the 27.7% and 7.9% in 2018 and the 31.3% vs. 10.7% in 2016). Additionally, older students were more likely to drive after drinking than were younger students (39.4% among 24+-year-olds vs. 31.0% among 22-23-year-olds vs. 9.7% among 20-21-year-olds vs. 3.2% among 18-19-year-olds).

There were no significant differences regarding driving after drinking 5 or more drinks by sex, age group, academic status, residence, race/citizenship, or GPA.

**ALCOHOL AND THE LAST TIME PARTIED.** Respondents were asked to indicate for how many hours they drank alcohol the last time they “partied” and then the number of alcoholic drinks they consumed during this time. The results for all respondents are shown in Table 10.



The table indicates that, among all respondents, the average number of drinks consumed the last time “partied” or socialized was 3.45 – compared to 3.57 in 2018, 3.31 in 2016, 4.08 in 2014 and 4.46 in 2012; however, this average includes the numerous students who do not drink alcohol at all and those who did not drink the last time they “partied” or socialized. The second row of the table and the subsequent analyses are based on only those respondents who reported drinking at least one drink the last time they “partied.”

- Among those who drank, the average number of drinks reported was 4.38, down from the 4.74 in 2018, 4.52 in 2016, 5.16 in 2014, and 5.59 in 2012.
- The average number of hours over which the drinking occurred decreased slightly to 3.77 compared to 3.82 in 2018. Consequently, the average Blood Alcohol Content (BAC) dropped slightly in 2020 to 0.056 from 0.063 in 2018 and 2016, 0.074 in 2014, and 0.083 in 2012.
- The average number of drinks reported for both males and females decreased in 2020 compared to 2018 (i.e., males = 5.23 vs. 5.91; females = 3.67 vs. 3.74 in 2018). The calculated BAC was the same for males and females; it had decreased slightly for males in 2020 (0.056) compared to 2018 while it continued to decline for females (0.060 in 2018, 0.070 in 2016).

**Table 10. Mean Numbers of Drinks, Hours Drinking, Calculated Blood Alcohol Content (BAC) Last Time “Partied,” and Times Drank 5 or More Drinks in Past Two Weeks, Overall and by Demographic Group: 2020**

Demographic Group	Mean			
	Number Of Drinks	Hours Drinking	BAC	Number Times Drank 5+
All respondents	3.45	2.96	0.044	.88
Respondents who drank	4.38	3.77	0.056	1.12
Gender				
Males	5.23	3.86	0.056	1.42
Females	3.67	3.69	0.056	.86
	p<.05	NS	NS	p<.05
Race				
White	4.61	3.93	0.058	1.2
Other	3.59	3.24	0.046	.6
International	4.13	3.45	0.062	1.2
	p<.05	p<.05		p<.05
Age				
18-19	4.72	3.60	0.072	1.3
20-21	4.60	3.87	0.060	1.3
22-23	4.13	3.68	0.049	1.0
24 or older	3.78	3.91	0.032	.7
	p<.05		p<.05	p<.05
Residence				
On campus	4.37	3.40	0.064	1.1
Off campus	4.39	3.94	0.052	1.1
	NS	p<.05	p<.05	NS
GPA				
A	4.19	3.73	0.054	.98
B	4.76	3.80	0.063	1.32
C or less	4.41	3.78	0.044	1.28
	p<.05	NS	p<.05	p<.05
Member of Frat./Soror.				
YES	4.83	3.74	0.070	1.74
NO	4.33	3.77	0.054	1.04
		NS	p<.05	p<.05
Student Status				
Undergraduate	4.59	3.75	0.061	1.24
Grad./Prof.	3.58	3.85	0.034	.65
	p<.05	NS	p<.05	p<.05

NS: Not significant F statistic

- Males reported, on average, more occasions in which they consumed five or more drinks in the previous two weeks than females. The average number of occasions reported by males was virtually the same (1.42 times) as in 2018 (1.45 times) and somewhat higher than in 2016 (1.34 times) whereas it increased among females (0.86 times vs. 0.69 times in 2018) but was similar to the average number times reported in 2016 (0.82 times).



- On average, domestic White respondents reported drinking more drinks over longer periods of time than domestic students of Other racial or ethnic backgrounds and reported more occasions in the previous two weeks when they consumed five or more drinks. International students reported averages on these that resembled the averages among domestic White students.
- In general, younger students reported drinking somewhat greater numbers of drinks and over shorter periods of time resulting in higher blood alcohol levels on average than their older student counterparts.
- On-campus students drank similar numbers of drinks but over shorter periods of time compared to off-campus students resulting in, on average, higher blood alcohol levels. This was similar to the results of the five previous surveys.
- Respondents who were members of fraternities or sororities reported drinking, on average, more drinks resulting in appreciably higher average blood alcohol levels compared to non-members. The average numbers of drinks and BAC reported in 2020 were similar for both groups to their results in 2018, 2016, and 2014 (members: BAC = 0.070 in 2020 vs. 0.077 in 2018 vs. 0.072 in 2016 vs. 0.089 in 2014; non-members: BAC = 0.054 in 2020 vs. 0.061 in 2018 vs. 0.062 in 2016 vs. 0.072 in 2014). Members of fraternities or sororities reported drinking five or more drinks on more occasions in the previous two weeks than did non-members (i.e., 1.7 vs. 1.0), but the average number of occasions reported by fraternity/sorority members was still substantially lower than in 2014 (i.e., 2.3).
- The average number of drinks, blood alcohol level, and number of occasions they drank five or more drinks were significantly greater among undergraduates than among graduate and professional students.

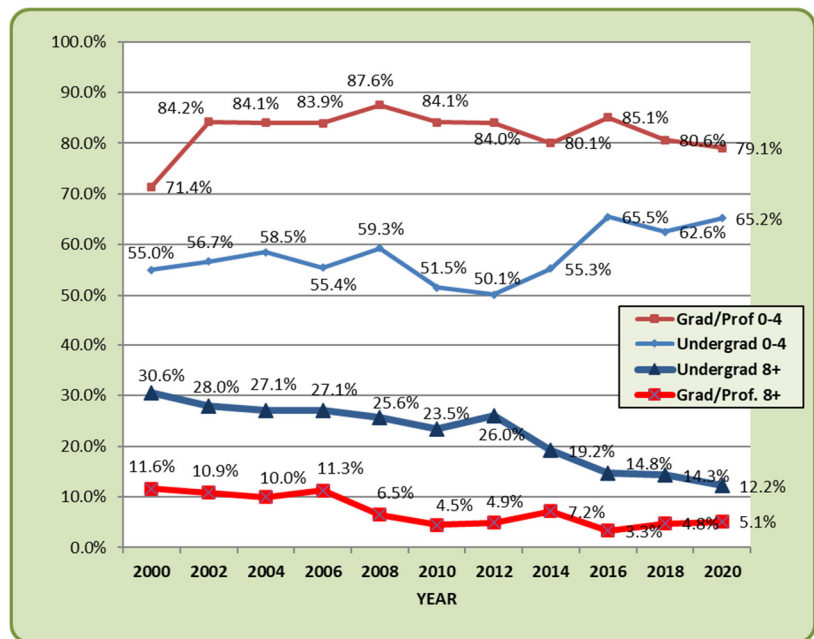
Alcohol consumption is an area where there have been concerted efforts at MSU since 2001 to reduce high-risk drinking and increase behaviors or strategies that may protect the drinker from some adverse consequences. The goal of the effort is not to increase abstinence but, rather, to reduce the likelihood of harm as a consequence of alcohol consumption. Figure 7 (along with Figure 6 and Figures 8-11) helps assess the impact of those efforts.

Figure 7 indicates that there has been little change from 2002 to 2020 in the percentage of graduate/professional students who reported consuming 0-4 drinks when they last "partied" while the percentage of undergraduates doing so has fluctuated slightly above or slightly below roughly 55% until increasing in 2016 through 2020. More importantly, Figure 7 shows that, there have been relatively steady declines in the percentages of both undergraduates and graduate/professional students who reported consuming eight or more drinks the last time they "partied."

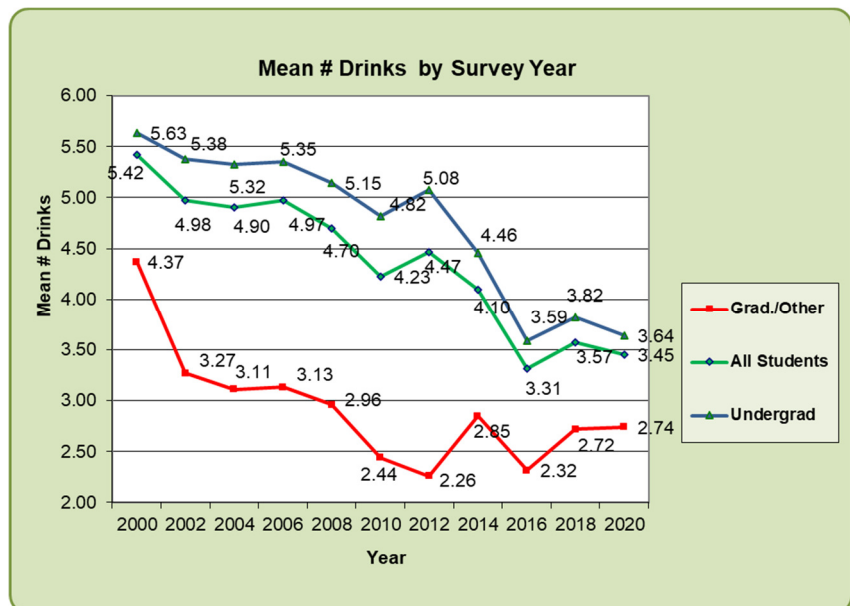
The overall impact of the effort is also reflected in Figure 8. This figure shows the average numbers of drinks reported by all students, by just undergraduates, and by just graduate/professional students the last time they "partied" for the surveys conducted from 2000 to 2020.

The figure shows that the average number of drinks reported by undergraduates had declined from 5.6 in 2000 to 4.8 in 2010 (a 14% decrease), increased to 5.1 in 2012, and then declined to 3.6 in 2016 and 3.6 in 2020. The figure also shows that there had been a continuing decline among the graduate and professional students from 4.4 drinks in 2000 to 2.3 in 2012, rose to 2.9 in 2014, and then declined to 2.7 in 2018 and 2020. For all students, the decline has been from 5.4 in 2000 to 3.5 in 2020 – a 36% decline.

The approach being used to reduce high-risk drinking assumes that students often over-estimate what most students do and attempts to



**Figure 7. Percentage of Undergrads, Graduate/Professional Students Who Reported 0-4, 8+ Drinks the Last Time They "Partied:" 2000 to 2020**



**Figure 8. Average Number of Drinks Consumed Last Time "Partied" for All Students, Undergrads, Grad/Professional Students: 2000 to 2020**

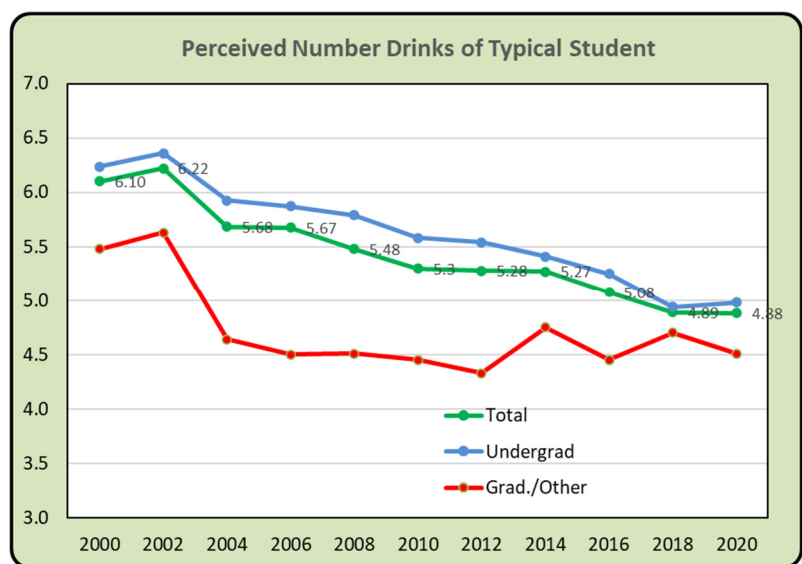
correct this misperception by distributing accurate information about what most students actually do. If this approach works, then there should be a decrease in the perceived number of drinks students believe that students typically consume when they party as the efforts to correct the misperception continue over time. Respondents were asked to indicate how many alcoholic drinks they thought the “typical” MSU student had the last time he or she partied. On average, respondents indicated thinking that the “typical” student drank 4.8 drinks the last time the “typical” student “partied”. This is slightly less than the 4.9 drinks reported in 2018, 5.1 drinks in 2016, and 5.3 drinks reported in 2014, and is much less than the 6.1 drinks students believed to be typical in 2000 before the effort to correct the misperception began.

Figure 9 shows the change from 2000 to 2018 in the average number of drinks students perceived the “typical” student drank the last time they “partied.”

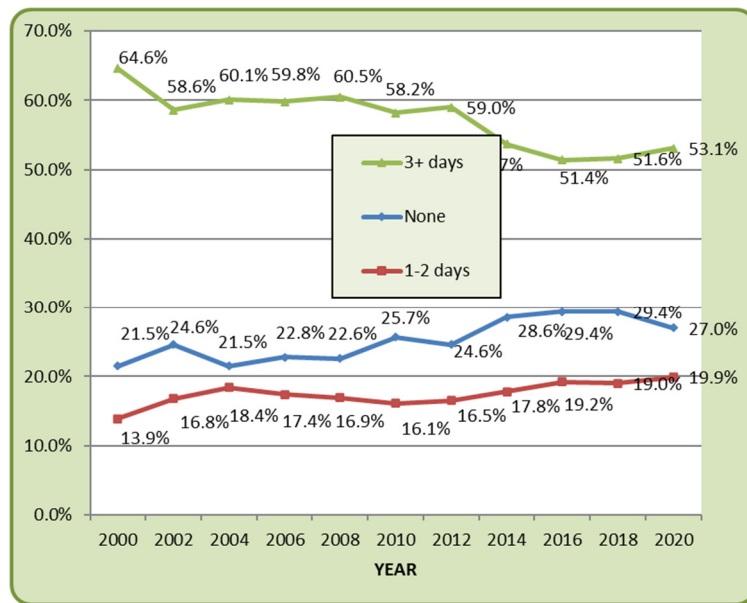
The figure indicates that:

- There has been a substantial downward shift in students’ perceptions as to the number of drinks the “typical” student consumes.
- Undergraduates believe the “typical” student drank significantly more than graduate and professional students believe.

Over the past twenty years while the campaign to reduce high risk drinking has been underway, student perceptions as to what amount of drinking is typical has changed, the average number of drinks students consume when partying and percentages of students who drink larger quantities has declined, and the percentages of students who drive after they have been drinking have declined.



**Figure 9. Average Number of Drinks All Students, Undergrads, Grad/Professional Students Believe "Typical" Student Drank Last Time "Partied:" 2000 to 2020**



**Figure 10. Percent Distribution Regarding Drinking Frequency: 2000 to 2020**

Additionally, Table 7 showed the percentages of students who reported how often they drink alcohol. For purposes of comparison across time, we have regrouped the responses to the item regarding alcohol use in Table 7 into three categories – do not drink alcohol at all or not in the past month, drank alcohol one or two days in the past month, and drank alcohol three or more days in the past month. Figure 10 shows the percentage distribution of this breakdown among all students for each of the survey years since 2000.

The figure indicates there has been a general increase in the percentage of students who drink infrequently – not at all or only one or two days per month, and a general decrease

in the percentage of students who drink three or more times per month. Since 2000, the percentage of students who reported drinking three or more days in the previous month declined by 18%, while the percentage of students who reported not drinking at all or not in the previous month increased by 26%.

**ALCOHOL-PROTECTIVE BEHAVIORS.** The questionnaire also included a series of questions regarding how often the respondent did various things to protect themselves from possible harms associated with alcohol consumption, e.g., having a designated driver, eating food before or while drinking, setting a drink limit in advance, pacing consumption to one or fewer drinks per hour, etc. These activities are often referred to as “protective behaviors” since they have been shown to reduce the likelihood of adverse consequences of alcohol consumption. The questionnaire used since 2010 included two such activities that were not asked about on the questionnaires used from 2000 to 2008 and did not ask about one activity that had been included previously. Therefore, comparisons to earlier survey results are limited. The comparisons are further compromised by a change in how the response options to the questions were formatted.

Table 11 shows the percentages of respondents who drink who reported doing each of eleven different strategies for drinking responsibly either always, usually, sometimes, rarely, or never. The results for each of these was at its lowest point in 2010, but the percentages of students who reported always or most of the time doing these have increased generally from 2010 to 2020. The table indicates that:

- More than half indicated they at least sometimes pace their drinking to 1 or fewer drinks per hour (56.9% – virtually the same as in 2018 and 2016), avoid drinking games (50.5% – the same as in 2018), have a friend let them know when they have had enough (59.6% – up slightly from 57.8% in 2018 and 2016, and 54.0% in 2014), or choose not to drink (59.7% – similar to the 55.7% in 2018, 62.9% in 2016, and 59.8% in 2014).
- More than six out of ten reported that they at least sometimes alternate non-alcoholic drinks with alcoholic beverage (65.9%) or determine in advance not to drink more than a specific number of drinks (63.3%).
- More than eight out of ten reported that they at least sometimes keep track of the number of drinks they have had (85.2%) and that they at least sometimes stick with the same kind of alcohol (84.5%).
- More than nine out of ten reported that they at least sometimes use a designated driver (95.3% – up slightly from the 94.1% in 2018, 92.9% in 2016, and 93.2% found in 2014), stay with the same group of friends while drinking (97.9% – up slightly from 96.7% in 2018 and 2016, and from 95.5% in 2014), or eat before or while drinking (97.8% – up slightly from 96.3% in 2018 and 95.0% in 2016, and virtually the same as the 97.2% found in 2014).

**Table 11. Percentage Distribution How Often Respondents Who Partied Took Various Steps to Drink Responsibly: 2020**

During the last 12 months, if you partied, how often	Most of the Time				
	Never	Rarely	Sometimes	Most of the Time	Always
Alternated non-alcoholic with alcoholic beverages	13.4%	20.7%	30.2%	24.7%	11.0%
Avoid drinking games	23.9%	25.6%	23.0%	13.1%	14.3%
Chose not to drink alcohol	13.5%	26.8%	41.8%	15.7%	2.2%
Determined not to exceed number drinks	20.2%	16.5%	28.2%	20.7%	14.4%
Ate before/during drinking	0.4%	1.8%	11.8%	48.8%	37.2%
Have friend let you know when you've had enough	24.2%	16.2%	20.6%	19.2%	19.7%
Kept track of how many drinks were having	6.1%	8.7%	18.7%	26.5%	40.0%
Paced drinks to 1 or fewer per hour	20.1%	23.0%	26.7%	18.6%	11.5%
Stayed with same group of friends	0.8%	1.3%	4.9%	32.4%	60.5%
Stick with one kind of alcohol	3.2%	12.4%	31.3%	39.1%	14.0%
Use a designated driver	3.3%	1.4%	9.5%	12.7%	73.1%

- Among those who drink at least occasionally, the average number of protective behaviors respondents reported doing at least sometimes was 7.9 – virtually the same as in 2018, 2016, and 2014.
  - Among those who drank 0-4 drinks the last time they “partied,” the average number of protective behaviors they reported doing at least sometimes was 8.4 – virtually the same as the previous four surveys.
  - Among those who drank 5-7 drinks, the average number of protective behaviors they reported doing at least sometimes was 7.5, as it was in 2018, 2016, 2014, and 2012.
  - Among those who drank 8 or more drinks, the average number of protective behaviors they reported doing at least sometimes was 6.5 – up from 6.0 in 2018, but similar to the 6.5 in 2016, 6.2 in 2014 and 6.3 in 2012.

Table 12 compares the responses regarding using these protective behaviors based on gender, race, age, residence location, GPA, student status, and membership in Greek organizations. Table 12 shows the percentage of respondents who said they always or usually do the various protective behaviors. Table 12 indicates that:

- Females were more likely than males to report always or usually doing eight of the eleven protective behaviors – although not necessarily all at the same time. The protective behaviors on which males and females did not differ significantly were eating before or while drinking, staying with the same group of friends, and sticking with one kind of alcohol.
- Domestic White respondents were less likely than their domestic counterparts of Other racial or ethnic backgrounds and international students to choose not to drink. International students were less likely than their domestic counterparts to eat before or during drinking, to stay with the same group of friends, and to use a designated driver.
- There were statistically significant differences across age groups of respondents on five of the eleven protective behaviors; however, the patterns of the differences were not consistent.

Table 12. Percentage of Respondents Who Partied Who Always or Usually Took Various Steps to Drink Responsibly, by Background Characteristics: 2020												
During the last 12 months, if you partied, how often did you...		Alternate Alc. & Non-Alc. Drinks	Avoid Drinking Games	Choose Not to Drink	Determine not to Exceed Number Drinks	Ate Before/ During Drinking	Have Friend Tell When Had Enough	Track How Many Drinks	Paced Drinks ≤ 1 per Hour	Stay with Friends	Stick with One Kind of Alcohol	Use Designated Driver
Gender	Males	29.9%	19.3%	12.6%	29.1%	86.2%	34.0%	61.2%	23.9%	91.3%	50.6%	78.8%
	Females	40.5%	34.1%	22.1%	40.0%	86.0%	43.0%	71.0%	35.2%	94.2%	55.2%	91.7%
		p<.05	p<.05	p<.05	p<.05	NS	p<.05	p<.05	p<.05	NS	NS	p<.05
Race	White	35.4%	25.6%	14.2%	33.3%	87.3%	36.6%	65.5%	28.9%	93.6%	53.4%	86.7%
	Other	40.6%	31.1%	30.4%	42.5%	90.4%	44.4%	69.9%	37.0%	96.4%	54.7%	87.6%
	International	25.0%	36.2%	20.4%	32.6%	60.4%	49.0%	67.3%	25.0%	77.1%	44.9%	71.1%
Age		NS	NS	p<.05	NS	p<.05	NS	NS	NS	p<.05	NS	p<.05
	18-19	37.2%	24.0%	21.2%	43.9%	84.2%	43.0%	69.3%	26.1%	94.1%	53.3%	89.2%
	20-21	31.6%	20.6%	18.1%	31.2%	85.9%	44.2%	63.0%	25.0%	91.7%	50.4%	87.5%
	22-23	41.6%	23.2%	12.9%	31.9%	88.8%	34.2%	68.7%	29.6%	93.0%	52.2%	87.2%
	24 or older	36.8%	50.8%	18.4%	36.1%	88.1%	25.6%	68.3%	47.6%	94.3%	58.1%	77.1%
Residence		NS	p<.05	NS	p<.05	NS	p<.05	NS	p<.05	NS	NS	p<.05
	On campus	37.4%	25.1%	22.9%	42.3%	83.3%	44.0%	72.4%	27.9%	95.5%	54.8%	91.7%
	Off campus	34.9%	28.7%	15.5%	31.8%	87.1%	36.6%	63.8%	31.1%	91.7%	52.3%	83.0%
GPA		NS	NS	p<.05	p<.05	NS	NS	p<.05	NS	NS	NS	p<.05
	A	38.8%	30.3%	18.9%	37.4%	87.0%	41.3%	67.6%	33.4%	92.7%	56.5%	85.4%
	B	30.7%	22.3%	15.2%	32.0%	84.7%	36.8%	65.7%	21.9%	92.6%	46.5%	85.5%
	C or less	36.0%	28.0%	16.0%	34.0%	88.0%	36.0%	66.0%	40.0%	96.0%	58.0%	94.0%
Member of Fraternity or Sorority		NS	NS	NS	NS	NS	NS	NS	p<.05	NS	p<.05	NS
	YES	27.9%	11.9%	10.1%	30.9%	88.2%	44.1%	50.0%	14.9%	88.4%	43.3%	89.7%
	NO	36.5%	29.2%	18.8%	35.6%	85.8%	38.3%	68.3%	31.8%	93.4%	54.2%	85.4%
Student Status		NS	p<.05	NS	NS	NS	NS	p<.05	p<.05	NS	NS	NS
	Undergrad	34.2%	21.7%	17.1%	34.3%	85.7%	41.3%	64.3%	25.4%	92.9%	51.6%	87.0%
	Grad./Prof.	41.3%	49.6%	21.0%	38.7%	87.0%	30.0%	74.6%	48.3%	93.0%	58.7%	81.2%
		NS	p<.05	NS	NS	NS	p<.05	p<.05	p<.05	NS	NS	NS
NS: Not significant Chi-square statistic												



- Respondents living on campus were more likely than their off-campus counterparts to report choosing not to drink, to determine not to exceed a specific number of drinks ahead of time, to keep track of their drinks, and to use a designated driver.
- Members of fraternities or sororities differed significantly from non-members on three of the eleven protective behaviors. Members were less likely than non-members to avoid drinking games, keep track of how many drinks they have consumed, and pace their drinking.
- Graduate/professional students were more likely than undergraduates to always or most of the time do three of the eleven protective behaviors but were less likely than undergraduates to report having a friend tell them when they have had too much.

**ALCOHOL AND UNDESIRABLE CONSEQUENCES.** The questionnaire asked respondents to indicate if they had experienced, at least once during the last twelve months, any of seven different undesirable events because of their drinking. Table 13 shows the results for each of these events.

The table shows the percentage of respondents who drink at least sometimes who reported that the event in question did happen to them during the last year. The table shows the overall results for 2020, 2018, 2016, 2014, 2012 and 2010. For 2020, Table 13 indicates that:

- More than a third of respondents who drink reported having done something when drinking that they later regretted (35.7%) – down slightly from the 36.3% in 2018 and the percentages found in the earlier years. Three out of ten (31.4%) reported having drunk to the point where they did not know where they were or what they did (similar to the results in 2018 and 2016, but down from those of 2014, 2012, and 2010).
- Less than one in seven (13.1% – down from all prior years) reported having injured themselves at least once as a consequence of their drinking; 22.7% reported having had unprotected sex as a consequence of their drinking – similar to most prior years; and 2.8% reported having seriously considered suicide – also similar to the results of the prior surveys.

The table also compares the likelihood of experiencing these events by gender, race/ethnicity, age group, residence location, GPA, and membership in a Greek organization. The table indicates that:

- None of the differences between males and females were statistically significant.
- Domestic students were more likely than international students to report having done something they later regretted, and having forgotten where they were or what they did.



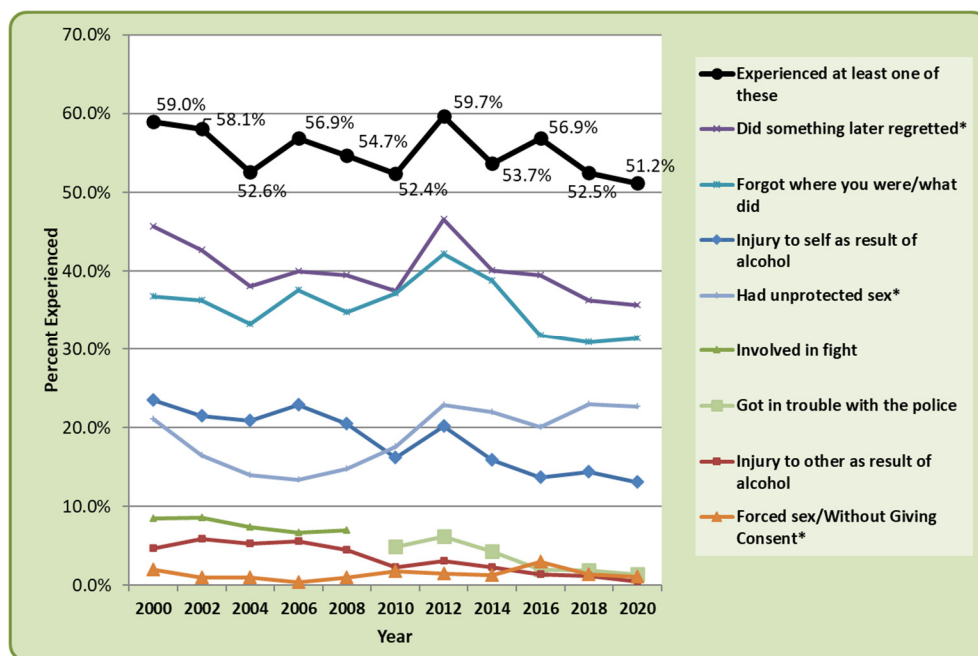
**Table 13. Percentage of Respondents Who Drink Who Report Experiencing Various Health Threatening Consequences of Their Drinking Within the Last Year, Overall and by Background: 2020**

Within the last 12 months, have you experienced ____ as a consequence of your drinking?		% Who Said Yes								
				Got in	Had Sex	Had Sex				
			Forgot	Trouble	Without	Without	Had			
		Did, Later	Where,	With	Giving	Getting	Unprotected	Injured	Injured	Seriously
		Regretted	What	Police	Consent	Consent	Sex	Self	Other	Considered
Overall:	2020	35.7%	31.4%	1.4%	1.1%	0.4%	22.7%	13.1%	0.5%	2.8%
	2018	36.3%	30.9%	1.9%	1.4%	0.8%	23.1%	14.4%	1.2%	2.4%
	2016	39.5%	31.8%	2.0%	3.0%	0.8%	20.1%	13.7%	1.4%	3.5%
	2014	40.1%	38.8%	4.3%	1.3%	0.7%	22.0%	15.9%	2.3%	3.0%
	2012	46.6%	42.2%	6.2%	1.5%	0.9%	22.9%	20.2%	3.1%	2.1%
	2010	37.5%	37.2%	4.9%	1.8%	0.5%	17.6%	16.2%	2.3%	1.0%
Gender										
	Males	38.7%	33.1%	2.0%	0.7%	0.7%	22.8%	11.7%	1.0%	1.6%
	Females	33.2%	30.0%	1.1%	1.6%	0.3%	22.8%	14.2%	0.3%	3.8%
		NS	NS	NS	NS	NS	NS	NS	NS	NS
Race										
	White	40.7%	34.4%	1.8%	1.2%	0.4%	24.7%	15.4%	0.6%	2.6%
	Other	23.3%	24.1%	0.0%	0.8%	0.0%	15.6%	6.0%	0.7%	1.5%
	International	17.4%	19.6%	0.0%	0.0%	0.0%	23.4%	8.7%	0.0%	8.7%
		p<.05	p<.05	NS	NS	NS	NS	p<.05	NS	p<.05
Age										
	18-19	38.5%	32.7%	1.9%	0.0%	0.0%	18.3%	17.8%	0.0%	4.3%
	20-21	34.4%	34.8%	1.8%	1.8%	0.7%	24.2%	12.8%	0.4%	1.5%
	22-23	42.9%	38.4%	1.8%	2.7%	0.0%	25.0%	16.1%	1.8%	5.4%
	24 or older	28.9%	15.8%	0.0%	0.0%	0.0%	24.8%	5.7%	0.8%	0.8%
		NS	p<.05	NS	NS	NS	NS	p<.05	NS	NS
Residence										
	On campus	37.3%	29.4%	0.9%	0.5%	0.0%	18.2%	15.0%	0.0%	3.3%
	Off campus	35.1%	32.3%	1.5%	1.5%	0.4%	24.9%	12.1%	0.7%	2.6%
		NS	NS	NS	NS	NS	NS	NS	NS	NS
GPA										
	A	30.8%	27.4%	0.5%	1.1%	0.5%	20.6%	12.1%	0.0%	3.2%
	B	42.5%	37.9%	2.9%	0.8%	0.4%	26.0%	15.3%	1.2%	2.5%
	C or less	38.8%	32.7%	0.0%	2.0%	0.0%	25.0%	12.2%	0.0%	2.0%
		p<.05	p<.05	p<.05	NS	NS	NS	NS	NS	NS
Member of Fraternity or Sorority										
	YES	52.9%	51.5%	2.9%	0.0%	0.0%	34.3%	25.0%	0.0%	4.4%
	NO	33.7%	29.1%	1.2%	1.2%	0.3%	21.4%	11.9%	0.5%	2.6%
		p<.05	p<.05	NS	NS	NS	p<.05	p<.05	NS	NS
Student Status										
	Undergrad	37.1%	33.5%	1.7%	1.3%	0.4%	24.0%	14.7%	0.6%	3.4%
	Grad./Prof.	30.4%	23.2%	0.0%	0.0%	0.0%	18.1%	6.5%	0.7%	0.7%
		NS	p<.05	NS	NS	NS	NS	p<.05	NS	NS
NS: Not significant Chi-square statistic										

NS: Not significant Chi-square statistic

- Respondents 24 or older were significantly less likely to report drinking enough that they forgot where they were or what they had done, or to have injured themselves.
- There were no significant differences across GPA groups or between those living on campus versus off campus on any of the types of adverse outcomes.
- Undergraduates were more likely than graduate/professional students to report having forgotten where they were or what they had done and having injured themselves.
- Members of fraternities or sororities were more likely than non-members to report doing something they later regretted, having forgotten where they were or what they had done, having drunk to the point where they did not know where they were or what they did, having unprotected sex, and injuring themselves.

Figure 11 shows the changes that have occurred from 2000 to 2020 in the percentages of students who reported experiencing each of these adverse outcomes because of drinking. Three of the nine outcomes listed in Table 13 were newly added to the version of the questionnaire administered starting in 2010, and one (being involved in a fight) was no longer included after 2008. Additionally, starting in 2010, the questions asked respondents whether or not they had experienced these outcomes over the past twelve months while the questionnaire administered from 2000 through 2008 asked if they had experienced these outcomes during the last school year. Because of the longer time frame referred to, the percentages should be a bit higher in 2010 and thereafter compared to earlier even if no real increase in the likelihood of experiencing harm from drinking occurred.



**Figure 11. Percentage of Students Who Drink Who Experienced Various Undesirable Outcomes of Drinking in Past Year: 2000 to 2020**

Roughly half the students who drink (51.2%) reported experiencing at least one of these adverse outcomes in 2020 – (down slightly from 52.5% in 2018, 56.9% in 2016, 53.7% in 2014, and 59.7% in 2012). The

average number of adverse outcomes reported per student was 1.0, virtually the same as in 2018, 2016, and 2014, but still down somewhat from 1.4 types of adverse outcomes in 2012.

Figure 11 shows that there had been a general decline in the reported incidence of most of these adverse outcomes from 2000 to 2020; although having unprotected sex has increased overall since 2000.

Overall, from 2000 to 2020, the percentage of students who, as a consequence of their drinking, reported:

- Doing something they later regretted declined by 22%
- Forgot where they were or what they did declined by 15%
- Injuring themselves declined by 44%
- Being involved in a fight – to 2008 only, not asked in 2010 or subsequent surveys – declined by 18%
- Injuring someone else declined by 89%
- Having forced sex increased by 45% (although this should be viewed cautiously because of wording changes in the question) and
- Experiencing at least one of the adverse outcomes decreased by 13%

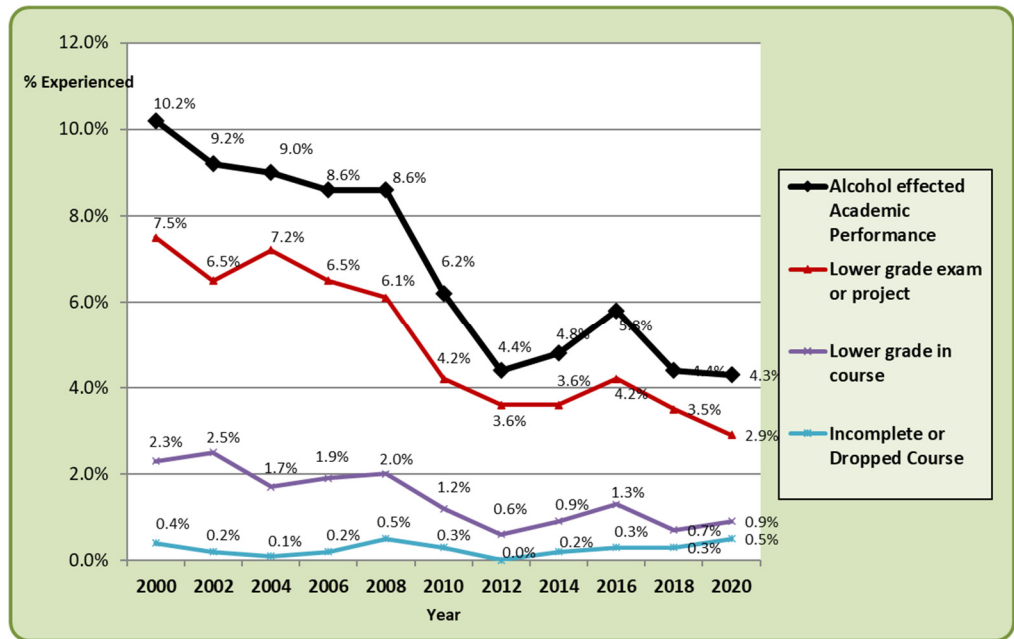
From 2010 to 2020 the percentage of students who, as a consequence of their drinking, reported getting in trouble with the police declined by 71%. The decline since 2018 might be attributed to the change in the Minor in Possession (MIP) law that occurred in 2018, shifting a MIP from a misdemeanor to a civil infraction, thereby limiting or altering interaction with police compared to before change in the law; however, this cannot explain the decline prior to 2018.

**ALCOHOL AND ACADEMIC PERFORMANCE.** In a later section of the questionnaire, respondents were asked whether their academic performance had been affected by 31 different health, behavior or relationship issues in the past twelve months and, if so, to what degree. One of the items listed was alcohol use. In 2020, 4.3% of all respondents indicated that their academic performance had been negatively impacted as a result of their alcohol use – virtually the same as the 4.4% found in 2018, but down slightly from 5.8% in 2016 and 4.8% in 2014. One in thirty-four (2.9%) reported receiving a lower grade on an exam or a project because of their drinking, 0.9% reported receiving a lower grade in a course, and 0.5% reported having to drop a course or take an incomplete as a result of their drinking.

Figure 12 below shows the percentage of students experiencing the adverse academic effects of drinking based on the NCHA surveys conducted from 2000 to 2020. The figure indicates that there has been a reduction in the percentage of students negatively impacted academically by alcohol use. From 2000 to 2020, the percentage of students who:

- Dropped a course or took an incomplete because of their alcohol use declined by 25%.
- Received a lower grade in a course because of their alcohol use declined by 61%.

- Received a lower grade on an exam or project because of their alcohol use declined by 61%.
- Experienced any of these negative impacts on their academic performance because of their alcohol use declined by 58%.



**Figure 12. Percentage of Students Experiencing Academic Harm as Result of Their Alcohol Use: 2000 to 2020**

## RESULTS: Sexual Behavior

The questionnaire included a series of questions regarding sexual behaviors and steps to prevent conception and sexually transmitted diseases. Table 14 shows the percentage distribution of the number of different partners, if any, with whom respondents reported having oral, vaginal, or anal sex during the previous twelve months.

The table indicates that:

- Three out of ten (29.7%) reported having no sexual partners during the last year – similar to the results of the previous three surveys, but greater than the 25.9% in 2012 and 2010 and 23.9% in 2008.
- 46.9% reported only a single partner – similar to the 48.0% in 2018 and the 44.4% in 2016.
- 10.1% of respondents reported having had four or more sexual partners during the past year – the same as in 2018 and very similar to the results in the surveys since 2010.

Table 14 also indicates that:

- Graduate/professional students were less likely than undergraduates to report not having had any sexual partners, but were much more likely than undergraduates to report having had only one partner in the past year. It is important to note in

**Table 14. Number of Sexual Partners in the Past 12 Months, Overall and by Background: 2020**

Within the past 12 months, with how many partners have you had oral sex, vaginal intercourse, or anal intercourse?	% of All Respondents					Ave. Number of Partners
	None	1	2	3	4 or More	
Overall	29.7%	46.9%	8.0%	5.3%	10.1%	1.5
Student Status						
Undergrad	31.8%	43.5%	8.8%	5.6%	10.2% *	1.5
Grad/Professional	21.7%	59.4%	5.1%	4.0%	9.7%	1.5
Gender						
Males	29.1%	49.0%	7.4%	4.3%	10.2%	1.5
Females	30.2%	45.0%	8.6%	6.1%	10.0%	1.5
Race/Ethnicity						
White Domestic	24.3%	50.2%	8.7%	6.2%	10.6% *	1.6 **
Other Domestic	36.2%	43.5%	6.2%	4.5%	9.6%	1.4
International	51.1%	33.3%	7.8%	0.0%	7.8%	0.9
Age						
18-19	33.0%	42.8%	9.8%	5.1%	9.3%	1.4
20-21	28.5%	46.3%	8.4%	6.5%	10.4%	1.6
22-23	34.0%	41.7%	7.6%	5.6%	11.1%	1.4
24 or older	22.4%	60.3%	5.1%	3.2%	9.0%	1.6
Residence						
On campus	39.9%	39.9%	9.0%	3.0%	8.3% *	1.2 **
Off campus	23.8%	50.9%	7.5%	6.6%	11.1%	1.7
GPA						
A	31.0%	48.9%	8.0%	4.0%	8.0% *	1.3 **
B	27.4%	43.2%	8.8%	6.3%	14.4%	1.8
C or less	28.6%	51.8%	1.8%	12.5%	5.4%	1.2
Member of Fraternity/Sorority						
YES	14.5%	52.2%	10.1%	8.7%	14.5% *	1.9
NO	31.2%	46.4%	7.8%	5.0%	9.6%	1.4
Sexual Orientation						
Heterosexual	31.0%	48.1%	7.2%	5.4%	8.3% *	1.3 **
Gay/Lesbian	11.4%	54.5%	6.8%	4.5%	22.7%	2.9
Bisexual	23.3%	40.0%	10.0%	5.0%	21.7%	2.0
Unsure/Other	37.1%	25.7%	20.0%	5.7%	11.4%	2.2
* $p(\chi^2) < .05$ ** $p(F) < .05$						

this regard that 25.4% of the graduate/professional students were currently married at the time of the survey compared to only 3.0% of the undergraduates.

- There were no significant differences between males and females on this.
- White domestic students tended to report having one or more partners than domestic students of Other racial/ethnic backgrounds while international students were more likely than the others to report having no sexual partners.
- Older students were more likely to report having had a sexual partner, but younger students were more likely to report more sexual partners, suggesting older students tend to be involved in committed relationships.
- Off-campus students were more likely than on-campus students to have had at least one sexual partner in the past year (82% of all married students live off campus compared to 62% of single students).
- Those with lower GPAs and those who are members of fraternities or sororities tended to report having more sexual partners than their respective counterparts.
- Gay/lesbian and bisexual students tended to report having more sexual partners than did heterosexual students.

The questionnaire asked respondents to indicate whether or not, within the previous twelve months, they had a sexual partner or partners who were female, male, or transgender. Among those who reported having any sexual partners and who identified themselves as a 'heterosexual male,' 99.0% reported having only female sexual partners in the past year, but 1.0% reported having only male sexual partners in the past year. Of those who identified themselves as 'heterosexual female,' 96.9% reported having only one or more male sexual partners in the past year, but 1.3% also reported having only a female sexual partner and 1.3% reported having both male and female partners in the past year.

Among those who identified themselves as a 'gay male,' 96.3% reported having only male sexual partner(s) in the past year, while 3.7% reported having had only female partners. Among those who identified themselves as 'lesbian female,' 40.0% reported having had only a female sexual partner(s) in the past year, while 3.7% reported having had only a male sexual partner, and another 40.0% reported having had both male and female partners in the past year.

Among those who identified themselves as a 'bisexual male,' 50.0% reported having had only a male sexual partner and 50.0% reported having had both male and female partners in the past year. Among those who identified themselves as a 'bisexual female,' 65.0% reported having had only a male sexual partner in the past year, 5.0% only female partners, 22.5% had both male and female partners and 5.0% some other combination.

The questionnaire asked respondents to indicate if they had had each oral sex, vaginal intercourse, and anal intercourse in the previous 30 days. They were then asked to indicate how often they or their partner used a condom when they engaged in that type of sexual activity. Table 15 shows the percentage distribution of responses for each of these. The results differ very little from each of the five previous surveys.

The table indicates that:

- Half the respondents (51.7%) respondents indicated having oral sex at least once in the previous month, while more than a quarter (26.1%) reported never having had oral sex.
  - As large a percentage of respondents reported having participated in oral sex as reported participating in vaginal intercourse (51.7% vs. 51.3%).
  - Males were more likely than females to report having had oral sex, but females were more likely to report having had vaginal sex.
  - Among those who reported participating in oral sex, 87.4% reported never using a condom while only 4.1% reported using a condom all or most of the time – similar to the results of the previous surveys.
- Half the respondents (51.3%) reported having had vaginal intercourse at least once in the previous month – generally similar to the results of the previous surveys.
  - As was the case in the prior surveys, females were more likely to report having had vaginal intercourse than males.

**Table 15. Percentage of Respondents Who Report Having Oral, Vaginal, Anal Sex, by Gender, Sexual Orientation and Percentage Using Condoms, in Last 30 Days: 2020**

Within the last 30 days, did you have. . .	% of Respondents Who Had		
	Oral Sex	Vaginal Intercourse	Anal Intercourse
OVERALL			
Never	26.1%	31.5%	76.2%
Not in Last 30 days	22.2%	17.2%	18.3%
Yes	51.7%	51.3%	5.6%
Gender	(Percent Yes in past month)		
Males	52.5%	47.3%	6.1%
Females	50.9%	54.8%	5.0%
Sexual Orientation	(Percent Yes in past month)		
Heterosexual	50.6%	53.5% *	2.7% *
Gay/Lesbian	60.5%	16.3%	36.4%
Bisexual	57.5%	54.8%	13.7%
Unsure	50.0%	45.0%	10.0%
If experienced in the last 30 days, how often respondent or partner used a condom during. . .			
Never Used Condom	87.4%	29.9%	30.7%
Rarely Used Condom	4.7%	8.6%	14.3%
Sometimes	3.7%	13.9%	20.5%
Most of the Time	1.6%	21.1%	9.8%
Always	2.5%	26.5%	24.6%
* $p(\chi^2) < .05$			



- One in six (16.3%) of those who identified themselves as gay or lesbian reported having had vaginal intercourse at least once in the previous month.
- Among those who reported having had vaginal sex at least once, 29.9% said neither they nor their partner(s) used a condom, while 47.6% of those who reported having vaginal intercourse reported they or their partner used a condom all or most of the time – down slightly from 50.3% in 2018, 52.7% in 2016, and 53.5% in 2014.
- Anal intercourse was much less common than either oral sex or vaginal intercourse. Three quarters of respondents (76.2%) reported never having had anal intercourse and another 18.3% reported not having done so in the previous month. One in twenty (5.6%) reported having anal intercourse at least once in the previous month – very similar to the 4-5% reported in the previous surveys.
  - Males and females did not differ significantly regarding having had anal intercourse in the previous month.
  - Gay/lesbian respondents, especially gay males, were much more likely than others to report having had anal intercourse at least once in the previous month.
  - Among those who reported having had anal sex, 30.7% reported they or their partner never used a condom, while 34.4% reported using a condom all or most of the time – similar to results from prior surveys.

For those who were sexually active, the questionnaire included another series of questions regarding the method the respondent and partner used to prevent pregnancy the last time they had vaginal intercourse. Respondents could use several methods simultaneously so multiple responses were possible. Among all respondents, 68.5% reported ever having had vaginal intercourse. Of these, 85.2% reported that they or their partner used birth control to prevent pregnancy the last time they had vaginal intercourse (virtually the same as in 2018 and somewhat higher than the 82.8% reported in 2016, the 81.5% reported in 2014, 77.1% in 2012 and 83.0% reported in 2010), while 3.1% reported not using contraceptives because they were trying to get pregnant. That means – to the best of the respondents' knowledge – 10.3% of the respondents and their partners did not use contraception the last time they had vaginal intercourse but were not intending a pregnancy, while another 1.4% reported not knowing if they used birth control or not.

Table 16 shows the percentage of sexually active respondents who claimed using each of the various methods the last time they had intercourse. The table also compares the reported use of these across respondents of different backgrounds. The table indicates that:

- 61.1% of these respondents claimed to use birth control pills (similar to the five previous surveys), and 37.9% reported relying on withdrawal – virtually the same as in 2018 but up from 36.1% in 2016, 33.5% in 2014, 28.7% reported in 2012, and 31.4% in 2010.



- Females were slightly less likely than males to report using birth control the last time they had vaginal intercourse while males were somewhat more likely to report not knowing.
- Males were somewhat more likely than females to report using a male condom.
- White domestic respondents were more likely than their domestic Other and international student counterparts to report using contraception the last time they had vaginal intercourse.
- White domestic respondents were more likely than Other domestic respondents and especially international respondents to report using birth control pills or multiple methods.
- Generally, respondents 24 or older were less likely than younger respondents to report using contraception and more likely to report trying not to prevent pregnancy.
- Those younger than 24 were more likely than their older counterparts to report relying on birth control pills, male condoms, or multiple methods, while older respondents were more likely than younger to report using an implant or IUD.
- Those with lower GPAs were not significantly less likely to report using any contraception than those with higher GPAs.
- Members of fraternities or sororities were no more likely than their non-Greek counterparts to report using contraception the last time they had vaginal intercourse, however they were more likely than their non-Greek counterparts to report using a vaginal ring.

Of those sexually active, 14.8% reported that they or their partner used emergency contraception at least once in the past year – virtually the same as the 15.2% that reported this in 2018, which was up from the 11.7% reported in 2016, but similar to the 15.5% reported in 2014, 14.9% in 2012, and 15.1% in 2010.

Additionally, 0.6% of sexually active respondents reported they or their partner became unintentionally pregnant in the previous twelve months – virtually the same as the 0.5% reported in 2018 and the 0.7% reported in 2016, but down slightly from the 1.2% reported in 2014, the 1.8% in 2012 and the 1.6% reported in 2010.

Table 16. Use of Birth Control by Gender, Race, Age, GPA, Member of Fraternity/Sorority: 2020															
	OVERALL % Yes	% Who Answered Yes													
		GENDER		RACE/ETHNICITY			AGE				GPA			MEMBER FRAT./Sor.	
		Males	Females	White Domestic	Other Domestic	Internatl	18-19	20-21	22-23	24+	A	B	C/D	Yes	No
Ever had vaginal intercourse: Yes	68.5%	65.2%	71.4%	74.5%	61.3%	45.6% *	61.1%	69.3%	69.9%	76.9% *	66.5%	72.7%	65.6%	80.3%	67.3% *
Respondent/partner used birth control last time had vaginal intercourse: Yes	85.2%	85.7%	84.6% *	88.7%	77.4%	70.7% *	86.6%	87.8%	88.8%	76.5% *	85.7%	83.6%	87.8%	87.7%	84.9%
No, Not trying to prevent pregnancy	3.1%	5.2%	1.6%	2.2%	6.6%	2.4%	0.0%	0.0%	5.1%	10.4%	3.9%	2.4%	0.0%	0.0%	3.4%
Which method(s) used the last time															
A Birth Control Pills	61.1%	62.0%	60.2%	65.2%	55.6%	24.1% *	72.4%	66.3%	50.6%	46.5% *	62.0%	59.6%	61.1%	68.0%	60.1%
B Birth Control Shots	1.9%	0.9%	2.7%	1.1%	6.2%	0.0% *	2.6%	1.6%	4.6%	0.0%	1.9%	2.3%	0.0%	4.0%	1.6%
C Birth Control Implants	6.0%	5.6%	6.1%	6.8%	1.3%	6.9%	3.5%	6.4%	2.3%	11.6% *	5.3%	7.6%	2.8%	2.0%	6.6%
D Birth Control Patch	0.3%	0.0%	0.4%	0.3%	0.0%	0.0%	0.9%	0.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.2%	0.0%
E Vaginal Ring	2.7%	2.4%	3.1%	1.1%	11.1%	0.0% *	0.9%	1.6%	8.2%	1.2% *	1.2%	2.4%	14.3% *	10.2%	1.9% *
F Intrauterine Device	14.0%	12.3%	15.5%	14.8%	12.2%	10.7%	7.0%	9.6%	18.6%	29.1% *	12.3%	16.4%	8.3%	12.2%	14.2%
G Male Condom	63.0%	68.1%	58.8% *	61.7%	61.7%	82.8%	75.7%	65.9%	57.5%	44.8% *	67.9%	56.7%	58.3%	52.0%	64.0%
H Female Condom	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
I Diaphragm/Cervical Cap	0.2%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%	0.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.2%
J Contraceptive Sponge	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
K Spermicide (e.g., foam, jelly, cream)	2.6%	4.7%	1.1% *	2.7%	1.2%	3.4%	4.3%	2.1%	2.3%	1.2%	1.9%	4.1%	0.0%	0.0%	3.1%
L Fertility Awareness (Calendar, Mucous, Basal Temperature)	8.1%	7.5%	8.7%	8.7%	6.2%	3.4%	9.6%	9.1%	8.0%	4.7%	9.5%	5.8%	8.6%	4.1%	8.5%
M Withdrawal	37.9%	36.3%	39.2%	38.7%	38.8%	27.6%	42.1%	41.7%	29.9%	32.6%	35.5%	41.5%	38.9%	28.0%	38.8%
N Sterilization	0.9%	0.5%	1.1%	1.1%	0.0%	0.0%	0.0%	0.5%	1.1%	2.3%	0.8%	0.6%	2.8%	0.0%	0.9%
O Other Method	1.2%	0.9%	1.5%	1.6%	0.0%	0.0%	0.9%	2.1%	1.2%	0.0%	0.8%	1.2%	2.8%	0.0%	1.4%
Used at least one method	84.6%	85.3%	84.0%	88.2%	76.4%	70.7% *	86.6%	86.9%	88.8%	75.7% *	85.7%	82.5%	87.8%	87.7%	84.3%
Used combined methods	56.5%	55.0%	57.5%	60.5%	50.9%	29.3% *	66.2%	62.4%	53.1%	39.1% *	59.3%	52.4%	53.7%	52.6%	56.7%
You or partner used emergency contraception last 12 months	14.8%	14.4%	15.1% *	15.9%	12.3%	10.0%	15.8%	20.7%	7.1%	9.6% *	11.1%	19.8%	20.0% *	17.5%	14.7%
Unintentionally became pregnant/ got someone else pregnant in last 12	0.6%	0.0%	1.0% *	0.2%	0.9%	2.6%	0.0%	0.5%	2.0%	0.0% *	0.0%	1.5%	0.0%	0.0%	0.6%
* p(x2) < .05															

## RESULTS: Fear and Victimization

**FEELING SAFE.** The questionnaire asked respondents to indicate how safe they feel on campus and in the surrounding community during daytime and nighttime. Figure 13 indicates that students overwhelmingly reported feeling very safe on the MSU campus during the daytime and considerably more so than they do in the surrounding community.

Figure 13 indicates that students reported feeling much less safe on campus during the nighttime than in the daytime, but still more safe on campus than they do in the surrounding community during the nighttime.

These results are generally similar to the results of the four previous surveys. However, Figure 14 shows that the percentages of respondents who said they felt 'very safe' during the daytime declined for both on campus (a 13% decline) and off campus (a 20%

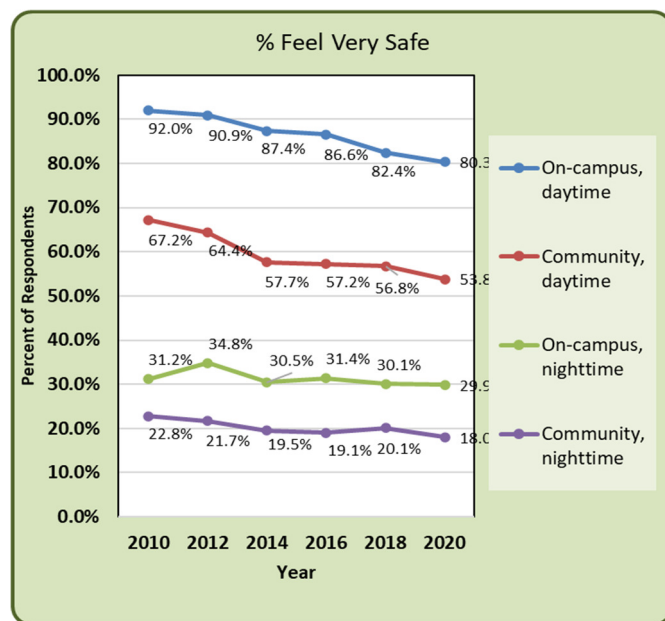


Figure 14. Percentage of Students Who Felt Very Safe On Campus and Off, Daytime and Nighttime: 2010 - 2020

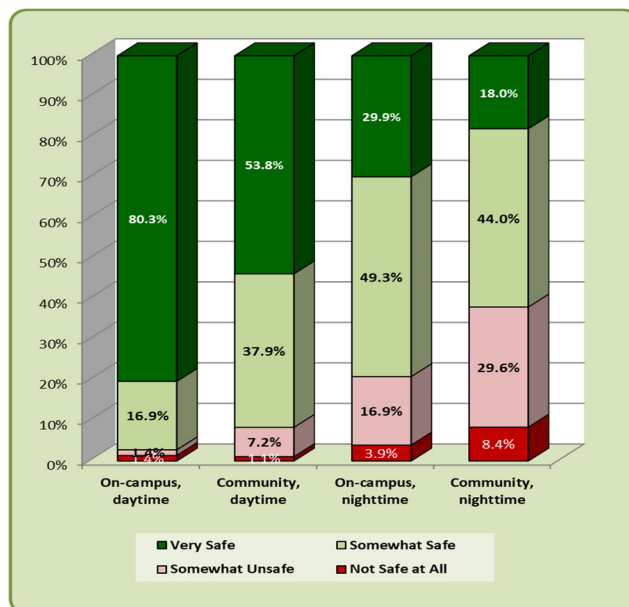


Figure 13. How Safe Students Feel On Campus and Off, Daytime and Nighttime: 2020

decline) since 2010. The percentage of students that reported feeling 'very safe' on campus at nighttime changed little over this time period, while the percentage of students who reported feeling 'very safe' in the surrounding community during the nighttime declined by 21%.

**VICTIMIZATION.** A section of the questionnaire asked respondents to indicate whether or not they had been involved in or were a victim of a variety of potentially harmful or troubling incidents during the last twelve months. As was noted in the four previous reports, prior to 2010, these questions referred to “in the past school year” rather than “the past twelve months.” As a result, other things being equal, the victimization rates would be expected to be somewhat higher in 2010 or later than in the previous years because of the longer time period referenced. Additionally, the wording to one of the items was modified to make it broader (‘verbally threatened’ rather than ‘verbally threatened for sex’) and a new item was also added.

Table 17 lists the ten different types of situations asked about and shows the percentage of respondents who reported that they had been involved or victimized in that way at least once during the last year. The table also compares the experience of each of these across various categories of respondents.

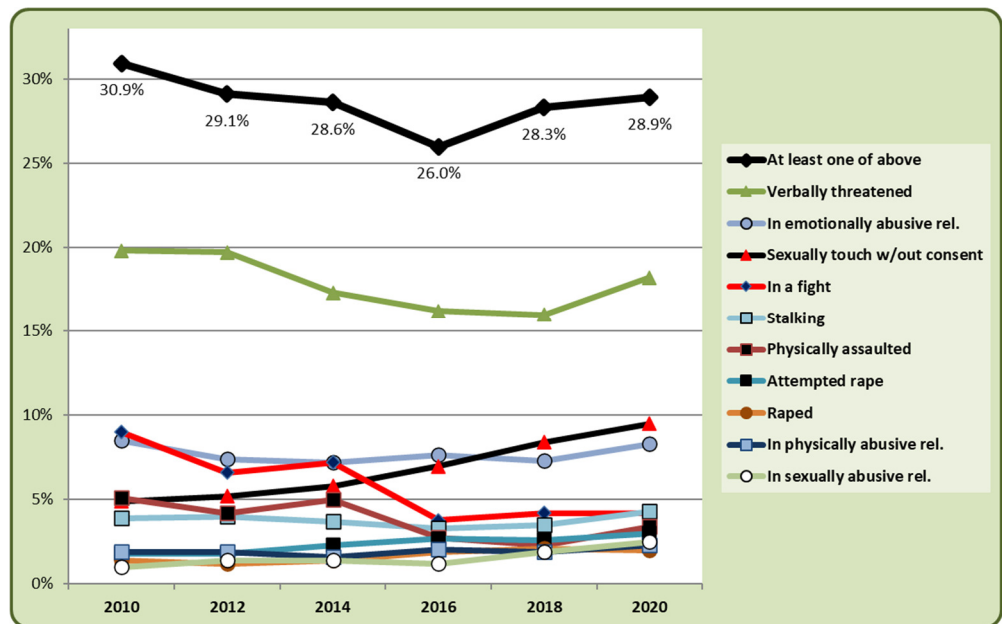
The table indicates that:

- Roughly one in six students was verbally threatened, one in twelve was involved in an emotionally abusive relationship, one in ten was sexually touched without their consent, one in twenty-five was involved in a physical fight, and one in thirty was physically assaulted.
- Overall, 28.9% of the respondents were victimized in at least one of these ten ways over the course of the previous year.
  - Males were more likely than females to have been verbally threatened; females were more likely than males to have been touched sexually without their consent, the victim of attempted sexual penetration and of rape, or to have been the victim of a sexually abusive relationship.
  - International students were more likely than domestic students to report having been in a physically abusive relationship.
- Those under age 24 were more likely than those 24 or older to have been physically assaulted, verbally threatened, sexually touched without consent, and in a physically abusive relationship.
- Undergraduate students were nearly twice as likely as graduate/professional students to have been victimized in at least one of these ten ways, and were much more likely to have been in a fight, physically assaulted, verbally threatened, sexually touched without consent, or in a physically abusive relationship.
- Members of fraternities or sororities were more likely than their non-Greek counterparts to have been victimized in five of the ten ways and were roughly 1.6 times more likely to have been victimized by at least one of these than were non-members.

Table 17. Percentage of Respondents Victimized in Various Ways Within the Last 12 Months, by Background: 2020														
Victimization	OVERALL % Yes	% Who Answered Yes												
		GENDER		RACE/ETHNICITY			AGE				STUDENT STATUS		MEMBER FRAT./SOR.	
		Male	Female	White Domestic	Other Domestic	Internatl	18-19	20-21	22-23	24+	Undergrad	Grad/Prof	No	Yes
Were in a physical fight	4.2%	5.0%	3.4%	3.7%	5.5%	5.3%	3.6%	6.1%	3.5%	1.3%	5.0%	1.1% *	3.0%	15.5% *
Were physically assaulted	3.4%	3.8%	3.1%	3.3%	2.2%	5.3%	1.8%	5.8%	3.5%	0.0% *	4.2%	0.6% *	2.6%	9.9% *
Verbally threatened	18.2%	21.9%	14.8% *	19.5%	16.6%	12.8%	15.6%	23.9%	16.7%	12.7% *	19.8%	11.9% *	17.9%	19.7%
Sexually touched without consent	9.5%	3.8%	14.6% *	9.3%	7.7%	12.8%	12.6%	9.6%	11.8%	2.5% *	10.7%	5.1% *	8.8%	15.5%
Attempted sexual penetration without consent	3.0%	1.0%	4.7% *	2.6%	5.0%	1.1%	3.1%	2.9%	4.9%	1.9%	3.1%	2.8%	2.7%	4.2%
Sexually penetrated without consent	2.0%	0.8%	3.2% *	1.8%	3.3%	1.1%	1.3%	2.3%	3.5%	1.3%	1.9%	2.3%	1.8%	2.8%
Were victim of stalking	4.3%	3.8%	4.7%	4.4%	4.4%	3.2%	4.0%	5.5%	3.5%	2.5%	4.9%	1.7%	3.9%	7.0%
In emotionally abusive relationship	8.3%	7.5%	9.0%	6.9%	12.6%	8.5% *	5.8%	8.7%	15.3%	5.1% *	8.9%	6.3%	7.3%	16.9% *
In physically abusive relationship	2.3%	2.5%	2.0%	1.2%	4.4%	5.4% *	1.3%	2.3%	6.9%	0.0% *	3.0%	0.0% *	1.3%	11.3% *
In sexually abusive relationship	2.5%	1.3%	3.6% *	2.5%	2.7%	2.1%	2.2%	1.9%	4.2%	2.5%	2.6%	2.3%	2.6%	1.4%
<b>Any type</b>	<b>28.9%</b>	<b>27.5%</b>	<b>30.2%</b>	<b>29.0%</b>	<b>30.2%</b>	<b>25.5%</b>	<b>29.5%</b>	<b>34.5%</b>	<b>30.8%</b>	<b>15.8% *</b>	<b>31.9%</b>	<b>17.5% *</b>	<b>27.4%</b>	<b>43.7% *</b>
* $p(\chi^2) < .05$														

Figure 15 shows the trends for each of these over the six surveys from 2010 to 2020. The figure indicates that, prior to 2018, there had been a gradual decline in the percentage of students who report having been victimized, but that there was an increase in 2018 and 2020 to 28.9%.

There were significant declines from 2010 to 2020 for four of these types of victimization: a 53% decline in being in a fight, a 33% decline in physical assault, an 8% decline in being verbally threatened. However, there were also appreciable increases in others.



**Figure 15. Percentage of Respondents Victimized by Various Acts, At least One: 2010 - 2018**

Virtually all of the overall increase in victimization from 2016 to 2020 is the result of increases in reporting of sexual victimization, i.e., being sexually touched without consent, attempted penetration without consent, and sexual penetration without consent. From 2010 to 2020, the percentages of students reporting they experienced these increased substantially: 94% increase in being sexually touched without consent, 67% increase in attempted sexual penetration without consent, 43% increase in sexual penetration without consent, and a 150% increase in being in a sexually abusive relationship. However, during this same ten-year time period, a campus-wide sexual assault education program has been under way. It was initially directed at in-coming freshmen and transfer students each year so that, over time, an increasing proportion of the whole student body would better understand what is and what is not legal consent. Consequently, it is difficult to know if the increased percentages of students reporting these actions since 2010 represent actual increases in prevalence or if it is the understanding as to when consent is required and what constitutes legal consent of these that has increased, resulting in respondents now identifying behaviors as victimization that they might have overlooked otherwise.

Additionally, during the time the survey was being administered in 2018 and 2020, there was a great deal of reporting nationally about a series of cases of sexual abuse of female patients by an MSU physician during patients' physical exams that may have increased the salience of the consent issues for respondents.

## RESULTS: Emotional Well-Being

To measure the experience of depression, stress, anxiety, and other markers of emotional well-being, the questionnaire asked respondents to indicate how recently – if ever – they experienced the various feelings listed. Each of the feelings listed represented varied types and intensities of emotional difficulty – from “felt overwhelmed by all you had to do” to “felt overwhelming anger.”<sup>2</sup> The last three items in this set of questions represent behavioral or ideational responses to emotional distress.

Table 18 indicates the percentage distribution of responses to each of the different emotional states. That table indicates that:

- More than half the respondents indicated they felt overwhelmed by all they had to do and felt exhausted just in the previous two weeks.
- Roughly eight out of ten respondents reported feeling overwhelmed (85.9%) or exhausted (85.3%) at least once in the past year – both very similar to 2018, 2016, and 2014.
- Roughly seven out of ten respondents reported feeling very sad (69.9% – up slightly from 67.7% in 2018 and from 62.3% in 2016 and 57.5% in 2014) at least once in the past year; two-thirds reported feeling overwhelming anxiety (67.5% – up from 59.6% in 2018, 57.6% in 2016, and 50.6% in 2014); six out of ten reported

**Table 18. How Recently Respondents Felt Emotionally Troubled in Various Ways: 2020**

Have you ever . . .	% of All Students				
	No, Never	Yes, But Not In Past 12 Mos.	Yes, In Past 12 Mos.	Yes, In Past Month	Yes, In Past 2 Weeks
Felt things were hopeless	27.8%	18.0%	24.2%	9.7%	20.4%
Felt overwhelmed by all you had to do	8.4%	5.7%	17.8%	15.6%	52.5%
Felt exhausted (not from physical activity)	9.0%	5.7%	16.5%	15.6%	53.2%
Felt very lonely	19.3%	17.8%	23.9%	14.4%	24.7%
Felt very sad	16.2%	14.0%	28.1%	14.0%	27.8%
Felt so depressed that it was difficult to function	35.4%	22.3%	20.2%	8.5%	13.6%
Felt overwhelming anxiety	20.9%	11.7%	24.7%	14.0%	28.8%
Felt overwhelming anger	32.8%	23.7%	21.9%	8.2%	13.3%
Intentionally injured self	81.1%	12.1%	4.4%	0.8%	1.6%
Seriously considered attempting suicide	74.3%	16.4%	6.0%	1.2%	2.1%
Attempted suicide	89.3%	8.8%	1.5%	0.0%	0.4%

<sup>2</sup> The list in the questionnaire used since 2010 included all the items from the previous questionnaire but included four other items as well. Additionally, the response options changed from the number of times the respondent felt or did something to how recently they felt or did something. Whereas the questions in the earlier version of the questionnaire focused on the past school year, the questionnaire used since 2010 was not limited in this way. This prevents any reasonable comparison to the results of surveys prior to 2010.

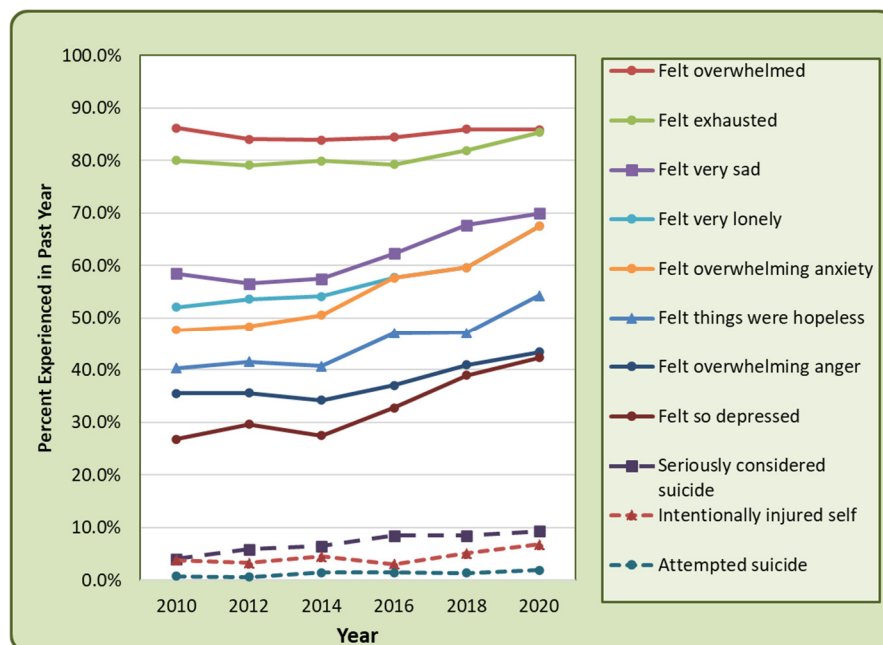
feeling very lonely (63.0% – up from 60.6% in 2018, 57.7% in 2016 and 54.1% in 2014).

- More than half reported feeling that things were hopeless at least once in the past year (54.2% – up from 47.1% in 2018 which was virtually the same as in 2016 but up from 40.7% in 2014).
- More than four out of ten reported feeling overwhelming anger (43.5% – up from 41.0% in 2018, 37.0% in 2016 and 34.3% in 2014) and feeling so depressed that it was difficult to function at least once in the past year (42.3% – up from 38.9% in 2018, 32.7% in 2016 and 27.4% in 2014).

The table also includes the percentages of respondents who, presumably as a consequence of their emotional states, behaved in self-destructive ways. The table indicates that:

- 6.8% of respondents reported intentionally injuring themselves at least once in the past year – up slightly from 5.2% in 2018, 3.1% in 2016 and 4.5% in 2014.
- 9.3% of respondents reported seriously considering attempting suicide at least once in the past year – slightly higher than the 8.5% in 2018 and 2016 and the 6.5% reported in 2014.
- 1.9% of respondents reported attempting suicide at least once in the past year – similar to the 2018, 2016, and 2014 findings.

Figure 16 shows the stability or the changes in the percentages of students experiencing these emotional challenges over the previous year for the surveys conducted since 2010. The figure illustrates that:

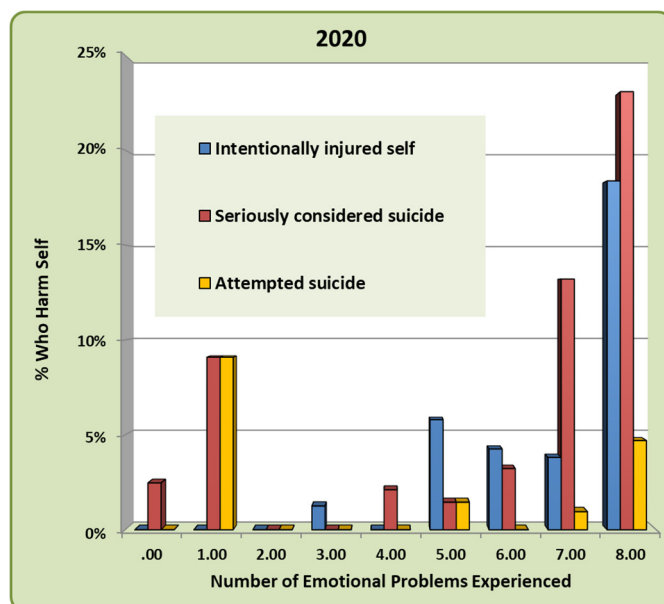


**Figure 16. Percentage of Students Experiencing Various Types of Emotional Distress, Engaged in Self Harm/Ideation in Past 12 Months, by Survey Year: 2010 – 2020**



- The percentages of students who, during the previous year, felt overwhelmed or felt exhausted but not from physical exertion were relatively constant across the four survey years.
- The percentages of students who reported feeling overwhelming anxiety, or felt things were hopeless, felt very sad, very lonely, felt overwhelming anxiety or so depressed that it was hard to function increased relatively steadily from 2010 to 2020.
  - The percentage of students who reported feeling very lonely, very sad, or overwhelming anger each increased by roughly 20% from 2010 to 2020
  - The percentage who reported feeling things were hopeless increased by roughly 35%
  - The percentage who reported feeling overwhelming anxiety increased by roughly 42%, and
  - The percentage who reported feeling so depressed it was difficult to function increased by 58%

The first eight items listed in Table 18 are experiences of intense emotions. The last three items listed in Table 18 are possible problematic responses to such intense emotions. By themselves each of the strong emotional experiences could, at least temporarily, impede the student's academic, social or physical well-being. The effect of experiencing several of these intense emotions can be appreciably more consequential. As in previous years' reports, we have examined the relationship between the number of the different



**Figure 17. Percentage of Students Engaging in Self-Harm by Number Emotional Problems Experienced: 2020**

emotional problems the student experienced and the likelihood of having intentionally injured one's self, seriously considered suicide, or attempted suicide.

Figure 17 shows the percentages of respondents experiencing various numbers of emotional problems who intentionally injured themselves, considered suicide or attempted suicide in the past year. The figure clearly indicates that the likelihood of a student engaging in one of the three types of self-harms or self-harm ideation increases substantially the more different emotional problems the student experiences. The risk is relatively low if the student experiences four or fewer emotional problems, increases substantially if the student experiences seven and increases dramatically if the student experiences all eight.

To explore the experience of such emotional difficulties within the student population, we have counted the number of the eight different emotional experiences respondents reported having in the past twelve months. The index could vary from 0 to 8.

One in ten respondents (9.7%) reported experiencing none of these emotional states in the past year and more than four out of ten (40.5%) reported experiencing seven or eight of the different emotional states – up from 34.7 in 2018, 31.9% in 2016, and 25.5% in 2014. The overall average number of the emotional problems experienced was 5.1 with a standard deviation of 2.7 – up slightly from the average of 4.8 in 2018, 4.6 in 2016, 4.3 in 2012, 4.3 in 2010, and 4.3 in 2010. That is, it appears that more students are experiencing more of the emotional difficulties.

Not surprisingly, Figure 16 indicates that there has been a concomitant increase from 2010 to 2020 in the percentage of students who reported seriously considering suicide – an increase of 127% since 2010. Figure 16 indicates that there has been a slight increase in the percentage who reported having attempted suicide from 0.8% in 2010 to 1.9% in 2020 – a 138% increase. Figure 16 also indicates that there has been a slight increase in the percentage of students who reported having intentionally injured themselves – a 79% increase from 4.1% in 2010 to 6.8% in 2020. Although the percentages are small, it is useful to remember that 1% difference in the prevalence of an action among MSU's student body represents a difference of roughly 480 students.

Table 19 compares the average number of emotional difficulties experienced in the past year across demographic groups. Table 19 indicates that:

- On average, females experienced more of the different emotional problems than males, domestic students more than international students, undergraduates more than graduate/professional students, and those with lower GPA's more than those with higher.
- Sexual minorities experienced more of the different emotional problems than heterosexuals.
- Married/partnered students experienced fewer of the emotional problems than single students, while separated/divorced students experienced more.
- The table indicates there were no significant differences in the averages based on residence on campus vs. off, or Greek organization membership.

Table 19 also compares the average number of emotional problems experienced across individuals based on their experience of various types of victimization as well. The table indicates that:

- Those who had been verbally threatened, touched sexually without their consent, the victim of attempted rape, those who had been raped, and those who had been in an emotionally or physically or sexually abusive relationship in the past year reported experiencing, on average, a greater number of the different emotional problems in the past year than those who had not been victimized in these ways.

**Table 19. Mean Number of Emotional Problems Experienced in the Past 12 Months, by Background and Victimization Experience: 2020**

Characteristic		Mean	sd	F	p(F)
Overall	min=0, max=8	5.10	2.66		
Gender	Males	4.56	2.83	31.46	.000
	Females	5.58	2.41		
Race	White	5.25	2.52	7.40	.001
	Other	5.14	2.78		
	International	4.10	3.06		
Age	18-19	5.39	2.59	3.33	.019
	20-21	4.95	2.68		
	22-23	5.47	2.63		
	24 or older	4.70	2.68		
Residence	On campus	5.10	2.71	.00	.971
	Off campus	5.10	2.64		
Student Status	Undergrad	5.21	2.69	5.08	.024
	Grad/Prof	4.70	2.52		
GPA	A	4.80	2.62	7.74	.000
	B	5.45	2.66		
	C or less	5.80	2.84		
Member of Fraternity or Sorority	YES	5.38	2.65	.81	.367
	NO	5.09	2.75		
International Student	YES	4.09	3.02	15.60	.000
	NO	5.23	2.58		
Marital Status	Single	5.24	2.60	10.47	.000
	Married/Partnered	3.43	2.86		
	Separated/Divorce	7.07	1.64		
	Other	4.51	2.63		
Sexual Orientation	Heterosexual	4.90	2.66	12.68	.000
	Gay/Lesbian	5.14	2.82		
	Bisexual	6.74	1.95		
	Unsure	6.34	2.40		

Table 19. (continued)

Characteristic		Mean	sd	F	p(F)
Hours Worked for Pay/Week	0 hours	4.92	2.65	2.03	.088
	1-9 hours	5.43	2.61		
	10-19 hours	5.08	2.71		
	20-29 hours	5.56	2.48		
	30+ hours	4.70	2.88		
Involved in physical fight In past 12 months	NO	5.09	2.65	.76	.383
	YES	5.49	3.07		
Physically assaulted in Past 12 months	NO	5.07	2.65	3.79	.052
	YES	6.06	2.85		
Verbally threatened in Past 12 months	NO	4.96	2.65	11.23	.001
	YES	5.75	2.64		
Sexually touched without Consent in Past 12 months	NO	4.99	2.66	14.89	.000
	YES	6.19	2.47		
Victim of stalking in past 12 months	NO	5.06	2.65	3.78	.052
	YES	5.94	2.89		
Victim of Attempted rape In Past 12 months	NO	5.06	2.66	6.94	.009
	YES	6.46	2.56		
Raped in past 12 months	NO	5.07	2.65	6.14	.013
	YES	6.68	2.92		
In emotionally abusive relationship	NO	4.93	2.67	43.00	.000
	YES	7.06	1.55		
In physically abusive relationship	NO	5.06	2.66	9.89	.002
	YES	6.97	2.33		
In sexually abusive relationship	NO	5.06	2.66	14.54	.000
	YES	7.28	1.25		
Intentionally injured self	NO	4.94	2.66	49.59	.000
	YES	7.44	1.19		
Seriously considered suicide	NO	4.88	2.64	61.14	.000
	YES	7.27	1.68		
Attempted suicide	NO	5.07	2.65	6.70	.010
	YES	6.81	2.39		
* p( F)< .05					

## RESULTS: Mental Health

The questionnaire also asked respondents to indicate whether or not they had been diagnosed or treated by a professional in the previous twelve months for any of 15 different mental health conditions. The questionnaire allowed respondents to indicate if they had not been diagnosed, they had been diagnosed but not treated, they had been diagnosed and treated with medication, with psychotherapy, with medication and psychotherapy, or with some other treatment. For summary purposes, we focus on whether or not respondents have been diagnosed with the condition and, of those who report having been diagnosed, whether or not they have been treated in at least one of the ways listed.

**Table 20. Percentage of Respondents Who Were Diagnosed, Treated for Various Mental/Emotional Health Problems in the Past 12 Months, by Background: 2020**

Health Problem  % Diagnosed		% of Diagnosed Treated	% Diagnosed in Past 12 Months								
			GENDER		RACE/ETHNICITY			STUDENT STATUS		RESIDENCE	
			Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof	On Campus	Off Campus
Anorexia	0.6%	54.3%	0.0%	1.1% *	0.9%	0.0%	0.0%	0.6%	0.6%	0.7%	0.6%
Anxiety Disorder	23.7%	74.8%	12.7%	33.5% *	27.0%	20.4%	9.9% *	23.0%	26.3%	21.0%	25.3%
ADHD	5.6%	82.0%	5.1%	6.1%	7.3%	2.2%	1.1% *	5.3%	6.3%	5.3%	5.7%
Bipolar disorder	2.5%	41.6%	1.0%	3.8% *	2.0%	3.3%	4.4%	2.9%	1.1%	3.6%	1.7%
Bulimia	1.3%	47.2%	0.0%	2.5% *	0.7%	1.1%	5.5% *	1.4%	0.6%	0.7%	1.5%
Depression	18.0%	82.8%	9.9%	25.2% *	20.0%	17.9%	5.6% *	17.9%	18.3%	16.5%	18.9%
Insomnia	4.7%	53.4%	2.8%	6.3% *	4.6%	4.4%	5.6%	4.7%	4.5%	4.9%	4.5%
Other sleep disorder	3.4%	67.6%	3.3%	3.6%	3.4%	5.0%	1.1%	3.8%	2.3%	3.6%	3.2%
Obsessive Compulsive Disorder (OCD)	3.0%	50.6%	1.8%	4.1%	3.5%	2.7%	0.0%	3.0%	2.9%	3.6%	2.4%
Panic attacks	11.7%	61.3%	5.8%	17.0% *	13.3%	7.8%	9.9%	11.5%	12.6%	9.5%	13.0%
Phobia	1.3%	52.2%	0.5%	2.0%	1.1%	0.0%	5.5% *	1.5%	0.6%	1.6%	1.3%
Schizophrenia	0.1%	100.0%	0.0%	0.2%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%	0.2%
Substance abuse problem	1.7%	40.8%	1.0%	2.3%	1.8%	0.5%	4.4%	2.1%	0.0%	1.3%	1.9%
Other addiction	1.0%	0.0%	0.8%	1.4%	0.5%	0.5%	4.4% *	1.4%	0.0%	3.6%	2.9%
Other mental health condition	3.5%	72.9%	4.4%	1.6%	4.4%	1.6%	2.2%	3.0%	4.1%	3.6%	3.6%
* p(x2) < .05											

\*  $p(\chi^2) < .05$

Table 20 shows the results and also compares the percentage diagnosed across selected demographic groups. The table indicates that less than 25% percent of the respondents had been diagnosed in the past year with any one of the conditions. The most commonly diagnosed condition was anxiety disorder (23.7%) of all respondents – up from 18.1% in 2018, 13.2% in 2016, 10.7% in 2014, 9.8% in 2012, and 7.5% reported in 2010. That is, the percentage of students diagnosed with anxiety disorder has tripled since 2010.

The second most commonly diagnosed mental health issue was depression (18.0%) – also up, from 14.1% in 2018, 11.9% in 2016, 8.5% in 2014, 8.8% in 2012, and 6.3% reported in 2010. That is, the percentage of students diagnosed with this mental health problem has also nearly tripled since 2010.

Among all respondents, 68.0% indicated that they had not been diagnosed with any of these conditions – down from the 75.1% in 2018, 77.3% in 2016, 82.0% in 2014, 82.1% in 2012 and 84.5% in 2010. In 2020,

11.0% reported having been diagnosed with one of these problems – continuing the gradual increase since the 7.2% in 2014 and 2012. Among those diagnosed with any, the average number they reported was 2.6 – slightly increased from the 2.4 found in 2012 through 2018.

The table also shows the percentage who were or are being treated among those diagnosed with a mental health condition in the past year. The majority of those diagnosed – with the exceptions of bulimia, bipolar disorder, and substance abuse – also reported they had received some type of treatment.

Table 20 compares the percentages of students diagnosed in the past year based on gender, race, campus residence, and student status. That table indicates that:

- Females were more likely than males to have been diagnosed with anorexia, anxiety disorder, bipolar disorder, bulimia, depression, insomnia, and panic attacks.
- White domestic respondents were more likely than Other domestic students or international students to report having been diagnosed with anxiety disorder, ADHD, and depression.
- Undergraduates and graduate/professional students did not differ significantly on having been diagnosed for any of the mental/emotional health conditions; neither did students living on campus vs. those living off campus.

The questionnaire asked respondents to indicate if they had ever been diagnosed with depression. Nearly a quarter (23.6%) reported that they had – up slightly from 20.8% in 2018, 18.4% in 2016, the 17.1% in 2014, 15.7% in 2012, and 14.1% in 2010. Of those who said they have ever been diagnosed, 70.4% reported they had been diagnosed or treated in the past year – up from 64.3% in 2018 continuing the rise from the 41.8% reported in 2010. That is, since 2010, an increasing percentage of students reported having been diagnosed with or treated for depression in the previous year.

**DIFFICULT/TRAUMATIC EVENTS.** The questionnaire asked respondents if any of twelve issues had been very difficult or traumatic for them in the past twelve months. Table 21 shows the percentages of students overall who reported great difficulty or trauma related to each of the issues. The table indicates that:

- More than four out of ten students (47.0%) reported that academic issues were very difficult or traumatic for them in the past year – about the same percentage as in 2018 (47.1%), 2016 (45.9%) and 2014 (45.0%), but up from the 42.6% in 2012 and 42.8% in 2010.
- Nearly three out of ten students (26.7%) reported trauma or great difficulty with intimate relationships in the past year – similar to the 27.9% found in 2018, 29.7% in 2016, 28.5% in 2014, 27.1% in 2012, and 29.3% in 2010.

**Table 21. Percentage of Respondents for Whom Various Issues Were Traumatic or Very Difficult in the Past 12 Months, by Background: 2020**

Issue	% For Whom Very Difficult, Traumatic	% Had Difficulty, Trauma In Past 12 Months											
		GENDER		RACE/ETHNICITY			RESIDENCE		YEAR/LEVEL IN SCHOOL				
		Male	Female	White Domestic	Other Domestic	Internatl.	On Campus	Off Campus	First	Second	Third	Fourth/ Fifth	Grad/Prof
Academics	47.0%	37.1%	55.8% *	45.0%	56.1%	41.1% *	46.4%	47.3%	42.7%	49.7%	46.9%	48.1%	46.1%
Career-related issue	29.0%	24.6%	33.0% *	24.9%	36.1%	40.7% *	23.9%	32.0% *	19.2%	25.5%	29.3%	32.7%	33.9%
Death of a family member or friend	17.0%	15.4%	18.4%	17.8%	19.1%	7.7% *	15.0%	18.1%	12.7%	20.7%	16.5%	18.2%	16.3%
Family problems	25.6%	18.2%	32.4% *	24.9%	32.4%	16.5% *	25.9%	25.4%	27.2%	32.9%	18.9%	25.7%	24.9%
Intimate relationships	26.7%	24.0%	29.0%	24.9%	34.4%	22.0% *	29.2%	25.2%	24.8%	35.6%	21.1%	30.8%	20.9% *
Other social relationships	27.0%	21.0%	32.4% *	26.8%	30.1%	22.0%	29.2%	25.7%	28.8%	33.1%	25.7%	29.0%	19.2%
Finances	30.8%	26.3%	34.7% *	27.6%	42.0%	28.6% *	32.5%	29.8%	28.2%	35.6%	24.6%	33.6%	30.7%
Health problems of a family member or partner	19.9%	14.9%	24.2% *	21.0%	17.9%	16.5% *	18.0%	20.8%	17.5%	22.1%	14.8%	21.1%	23.3%
Personal appearance	30.9%	22.5%	38.2% *	31.4%	35.9%	17.6% *	36.6%	27.7% *	35.2%	40.9%	30.1%	27.1%	25.0% *
Personal health issue	22.6%	16.7%	27.9% *	21.8%	30.9%	11.0% *	24.9%	21.3% *	24.0%	24.8%	21.0%	23.8%	19.9%
Sleep difficulties	28.7%	21.5%	35.1% *	27.3%	33.5%	27.5%	31.5%	27.1%	31.2%	32.2%	26.3%	31.9%	22.0%
Other	9.4%	6.7%	11.8% *	9.3%	13.6%	2.3% *	10.4%	8.9%	9.7%	11.0%	9.0%	10.8%	6.4%
* $p(\chi^2) < .05$													

- Roughly three out of ten students (30.8%) reported great difficulty or trauma associated with their finances – up slightly from 2018 (29.2%) and 2016 (27.9%), but similar to results in 2014 (31.1%) and 2012 (30.8%).
- Three out of ten reported difficulty or trauma with
  - Career-related issues (29.0%) – virtually the same as in 2018, which had risen from the 27.8% in 2016, 26.9% in 2014, and 25.0% in 2012 but not much greater than the 28.3% in 2010
  - With a personal appearance issue (30.9% vs. 22.5% in 2018, 21.3% in 2016, 20.9% in 2014, 18.5% in 2012, and 16.7% in 2010).
- More than a quarter (28.7%) reported difficulty or trauma because of
  - Sleep problems, which continues to creep up from 26.7% in 2018, 24.9% in 2016, 23.5% in 2014, 21.9% in 2012, and 21.8% in 2010.
- A quarter or more reported difficulty or trauma because of
  - Family problems (25.6% vs. 22.2% in 2018, 21.2% in 2016, 21.8% in 2014, 23.5% in 2012, and 20.6% in 2010),
  - Problems with other social relationships (27.0% vs 21.7% in 2018, 23.3% in 2016, 22.8% in 2014, 23.6% in 2012, and 21.2% in 2010), and
- Roughly one in five reported difficulty or trauma because of
  - A personal health issue (22.6% vs. 19.4% in 2018, 17.8% in 2016, 14.8% in 2014, 14.2% in 2012, and 14.4% in 2010),
  - The health problems of a family member or partner (19.9% vs. 17.6% in 2018, 16.4% in 2016, 14.9% in 2014, 17.4% in 2012, and 15.2% in 2010), and
- One in six (17.0%) reported difficulty or trauma because of the death of a family member or friend (vs. 13.3% in 2018, 13.0% in 2016, 15.1% in 2014, 12.9% in 2012, and 13.8% in 2010).

Table 21 compares the prevalence rates of the various issues by gender, race, residency, and year in college.

The table indicates that:

- Females were more likely than males to report experiencing great difficulty or trauma with each of these type of issues with the exceptions of intimate relationships and the death of a family member or friend.
- Other domestic students were more likely than White domestic and international students to report



experiencing great difficulty or trauma with nearly all of the issues listed.

- Off-campus residents were more likely than on-campus residents to report experiencing great difficulty or trauma with career-related issues, but less likely regarding personal appearance issues and a personal health issue.

Although Table 21 does not include the breakdowns, there was a clear relationship between experiencing difficulty or trauma and the respondents' GPAs. There were statistically significant differences across GPA categories on ten of the twelve issues. In each case, those with an "A" GPA were less likely to report experiencing difficulty or trauma than those with an "B" GPA, and those with a "C/D/F" GPA were in almost all cases more likely to report experiencing difficulty or trauma than those with a "B" GPA. There was no significant difference across GPA categories in the percentages of respondents who reported difficulty or trauma because of the death of a family member, or health problem of a family member or partner, but there were significant differences on the others.

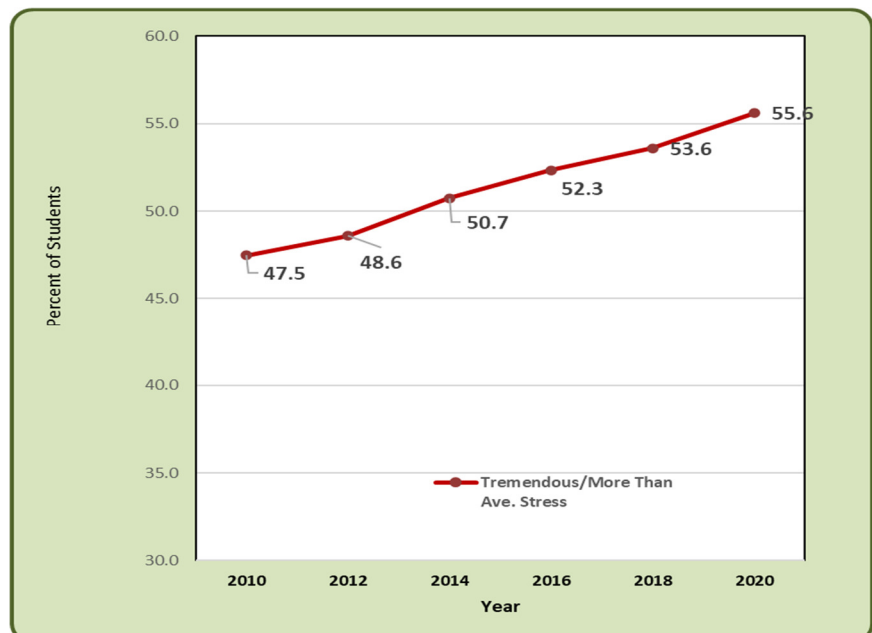
**STRESS.** Respondents were asked to rate the overall level of stress they experienced over the previous twelve months. Figure 18 shows the percentage distribution of responses for 2020, 2018, 2016, 2014, 2012 and 2010. The figure indicates the distributions have been very similar across the five surveys. It also indicates that more than half the respondents (55.6%) in 2020 rated their stress levels over the past



year as greater than average (i.e., tremendous or more than average) which was very similar to but slightly greater than the 53.6% in 2018, 52.3% in 2016, 50.7% in 2014, 48.6% in 2012 and the 47.5% reported in 2010.

The increase in the percentage of students who reported experiencing tremendous or more than average stress is more easily seen in Figure 19. From 2010 to 2020, there has been a 17% increase in the percentage of students reporting above average levels of stress.

**Figure 18. Respondents' Ratings of Overall Level of Stress Experienced in Past 12 Months: 2020 vs. 2018 vs. 2016 vs. 2014 vs. 2012 vs. 2010**



**Figure 19. Percentage of Respondents Reporting Stress Being Tremendous or More Than Average in Past Year, 2010 - 2020**

**MENTAL HEALTH SERVICES.** The questionnaire asked respondents whether or not they had ever received psychological or mental health services from a counselor, therapist or psychologist, from a psychiatrist, from some other medical provider, or from a minister, priest, rabbi, or other clergy. Considering the numbers of respondents who reported experiencing a wide variety of emotional, psychological, and traumatic difficulties, relatively few students reported ever receiving psychological or mental health services. Similar to the results from 2018, four out of ten (40.7%) reported receiving services from a counselor, therapist or psychologist, 17.0% from some other medical provider, 15.8% from a psychiatrist, and 4.0% from clergy. This, however, over-estimates the proportion of students who have received mental health services since many of those who received services from one type of provider also received services from another type of provider. Altogether, 44.3% of the respondents claimed to have ever received psychological or mental health services from some professional – an increase from the 37.9% in 2018 and 2016, 36.2% in 2014, 33.4% in 2012, and 30.7% reported in 2010 – while 55.7% reported they never have.

The question asked if the respondent had ever received psychological or mental health services so we do not know if those services occurred in the past year. However, similar to the findings of the three previous surveys, the majority of those who said they had been victimized in the past year said they had received such counseling services at some point in the past –

- physically or sexually assaulted, 67.9% (the same as in 2018, up from 60.7% in 2016);
- attempted rape, 68.0% (down slightly from 71.0% in 2018, 73.1% in 2016, which was up from 61.9% in 2014);
- raped, 64.7% (down from 65.4% in 2018, 78.9% in 2016 and 73.3% in 2014);
- in emotionally abusive relationship, 61.4% (up slightly from 59.1% in 2018, 59.7% reported in 2016, and 55.6% in 2014);
- in a physically abusive relationship, 50.0% (down from 56.5% in 2018 and 75.0% in 2016);
- in a sexually abusive relationship, 90.5% (up considerably from 65.2% in 2018, 66.7% in 2016, and 55.6% in 2014).

Similarly, between four out of ten and seven out of ten students who experienced great difficulty or trauma from various circumstances in the past year also reported having received such psychological or mental health services –

- career-related issues, 54.3% (vs. 44.1% in 2018, 50.7% in 2016 and 47.2% in 2014);
- academic problems 56.0% (vs. 46.3% in 2018, 46.2% in 2016 and 44.6% in 2014);
- financial concerns, 57.4% (vs. 49.7% in 2018, 50.7% in 2016 and 46.7% in 2014);

- problems with intimate relationships, 57.1% (vs. 48.2% in 2018, 51.4% in 2016 and 48.9% in 2014);
- problems with other relationships, 63.4% (vs. 54.2% in 2018, 51.1% in 2016 and 53.1% in 2014);
- personal appearance issues, 58.5% (vs. 49.4% in 2018, 55.2% in 2016 and 52.0% in 2014);
- health problem of a family member, 65.7% (vs. 46.2% in 2018, 55.9% in 2016 and 52.2% in 2014);
- death of a family member, 57.0% (vs. 41.0% in 2018, 45.8% in 2016 and 41.3% in 2014);
- sleep difficulties, 61.4% (vs. 50.0% in 2018, 50.6% in 2016 and 52.7% in 2014);
- family problems, 62.8% (vs. 48.5% in 2018, 51.4% in 2016 and 53.8% in 2014); or
- a personal health issue, 64.7% (vs. 56.4% in 2018, 60.9% in 2016 and 58.3% in 2014).

On problems that are more emotionally or psychologically internal to the individual, the respondents were less likely to report having ever received services, except when the crisis was more acute. The percentage of those who experienced various emotional problems who reported ever receiving services was:

- overwhelmed by what had to be done, 47.7% (vs. 40.8% in 2018, 40.1% in 2016 and 39.2% in 2014);
- felt exhausted, 47.4% (vs. 41.5% in 2018, 40.6% in 2016, and 39.3% in 2014);
- felt very lonely, 51.1% (vs. 44.9% in 2018, 42.6% in 2016, and 42.1% in 2014);
- felt very sad, 50.6% (vs. 43.1% in 2018, 42.7% in 2016, and 42.4% in 2014);
- felt overwhelming anger, 52.7% (vs. 46.7% in 2018, 46.0% in 2016, and 45.5% in 2014);
- felt hopeless, 52.4% (vs. 48.1% in 2018, 45.5% in 2016, and 46.3% in 2014);
- felt overwhelming anxiety, 53.5% (vs. 47.4% in 2018, 45.2% in 2016, and 44.8% in 2014);
- felt too depressed to function, 56.5% (vs. 51.2% in 2018, 49.8% in 2016, and 48.9% in 2014);
- intentionally tried to injure self, 73.4% (vs. 63.0% in 2018, 68.9% in 2016, and 56.2% in 2014);
- seriously considered suicide, 68.1% (vs. 68.2% in 2018, 66.7% in 2016, and 57.3% in 2014); or

- attempted suicide, 72.2% (vs. 76.2% in 2018, 73.1% in 2016, and 55.8% in 2014).

The questionnaire asked respondents whether or not they had ever received psychological or mental health services from their current college/university's counseling or health services. One in five (20.9%) of the students indicated that they had received psychological or mental health services from MSU's Counseling and Psychiatric Services or the Student Health and Wellness Center. This is similar to but slightly greater than the 18.2% reported in 2018, 15.4% in 2016, 13.0% in 2014, 11.1% in 2012, and 9.9% reported in 2010. That is, since 2010, there has been roughly 110% increase in the percentage of students who report having received psychological or mental health services from MSU's counseling or health services.

Respondents were also asked whether or not they would consider seeking help from a mental health professional in the future if they were having a personal problem that was really bothering them. Among all respondents, eight out of ten (82.9%) said that they would consider seeking help. This was somewhat greater than the 81.7% found in 2018, 77.8% in 2016, 70.6% in 2014, and 67.2% reported in 2012 and 2010. That is, there has been a noteworthy increase – a 22% increase – in students' professed willingness to seek mental health assistance in the past nine years.

Among those who reported that they had never received psychological or mental health services from a professional in the past, 76.9% said they would consider doing so in the future if they had a problem that was really bothering them, but 90.3% of those who have received such services from a professional in the past indicated they would consider doing so again in the future.

## RESULTS: Physical Health in the Past Year

Respondents were asked to report whether or not they had been diagnosed or treated by a professional for any of 26 different health problems within the previous twelve months. Table 22 shows the percentages of all respondents who reported having been diagnosed or treated with each of the problems during the past year. The results are very similar to those reported for the five surveys from 2010 to 2018. The table indicates that:

- Roughly one in six reported having been diagnosed with or treated for allergy problems (15.2%) and for a sinus infection (16.4%); one in nine (11.5%) reported having been diagnosed with or treated for strep throat or treated for back pain (12.0%); roughly one in thirteen (7.7%) for a urinary tract infection, and for asthma (8.0%); one in twenty for bronchitis (4.4%), a broken bone or sprain (5.8%), an ear infection (5.7%), or irritable bowel syndrome (4.5%).
- Half of the respondents (52.3%) reported having been diagnosed with or treated for at least one of the 26 health problems in the previous year. This is very similar to the 51.6% reported in 2018, 50.1% in 2016, the 48.7% in 2014, and 54.4% reported in each 2012 and 2010.
  - Females were more likely than males (60.9% vs. 42.6%) to report having been diagnosed with or treated for at least one of the health problems.
  - Domestic White and Other domestic respondents were more likely than international respondents to report having been diagnosed with or treated for at least one of the health problems (54.9% vs. 53.0% vs. 35.1%, respectively).
  - There were no significant differences between undergraduates and graduate/professional students or between those living on campus and those living off campus regarding having been diagnosed or treated for at least one of these health problems.
- Females were more likely than males to report having been diagnosed with or treated for allergy problems, asthma, back pain, endometriosis, migraine headaches, sinus infections, strep throat, and urinary tract infections. Males were more likely to report having been diagnosed with or treated for gonorrhea.
- Domestic respondents were more likely than international students to report having been diagnosed with or treated for Chlamydia, gonorrhea, mononucleosis, sinus infections, and strep throat; international students were more likely than domestic students to report having been diagnosed with high cholesterol.
- Those living on campus were more likely than off-campus students to report having been diagnosed or treated for allergy problems and ear infections, while off-campus students were more likely to report having been diagnosed or treated for high blood pressure.

Table 22. Percentage of Respondents Who Were Diagnosed or Treated for Various Physical Health Problems in the Past 12 Months, by Background: 2020										
Health Problem	Overall % Diagnosed or Treated	% Diagnosed or Treated During Past 12 Months								
		GENDER		RACE/ETHNICITY			STUDENT STATUS		RESIDENCE	
		Male	Female	White Domestic	Other Domestic	Internatl	Undergrad	Grad/Prof	On Campus	Off Campus
Allergy Problems	15.2%	12.3%	17.6% *	14.6%	14.4%	19.8%	16.3%	10.9%	18.8%	13.1% *
Asthma	8.0%	4.9%	10.6% *	8.0%	7.2%	9.9%	8.4%	6.8%	7.5%	8.1%
Back pain	12.0%	9.2%	14.5% *	13.5%	7.8%	12.4%	11.4%	13.8%	10.6%	12.9%
Broken bone/fracture/sprain	5.8%	7.2%	4.7%	5.5%	6.1%	6.7%	6.1%	4.6%	5.9%	5.7%
Bronchitis	4.4%	3.3%	5.5%	5.5%	2.8%	1.1%	4.6%	3.4%	4.3%	4.6%
Chlamydia	1.0%	1.0%	0.9%	0.4%	3.3%	0.0% *	0.9%	1.1%	1.3%	0.8%
Diabetes	0.7%	0.5%	0.9%	0.4%	0.6%	2.2%	0.2%	2.9% *	0.3%	0.9%
Ear infection	5.7%	5.1%	6.3%	6.9%	4.4%	2.2%	6.5%	2.8%	8.2%	4.3% *
Endometriosis	0.7%	0.0%	1.4% *	0.5%	1.7%	0.0%	0.8%	0.6%	0.3%	0.9%
Genital herpes	0.3%	0.5%	0.2%	0.4%	0.6%	0.0%	0.0%	1.7% *	0.0%	0.6%
Genital warts/HPV	0.5%	0.5%	0.5%	0.7%	0.0%	0.0%	0.6%	0.6%	0.0%	0.8%
Gonorrhea	0.6%	1.3%	0.0% *	0.0%	2.8%	0.0% *	0.8%	0.0%	0.0%	0.9%
Hepatitis B or C	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
High blood pressure	3.6%	4.9%	2.5%	3.6%	4.4%	2.2%	2.9%	6.3% *	1.6%	4.7% *
High cholesterol	2.2%	1.3%	3.1%	2.0%	1.1%	6.6% *	2.0%	3.4%	1.0%	3.0%
HIV infection	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Irritable bowel syndrome	4.5%	3.3%	5.6%	4.8%	5.6%	1.1%	5.2%	2.3%	5.9%	3.6%
Migraine headache	7.0%	3.6%	10.0% *	8.0%	4.4%	5.5%	7.1%	6.3%	6.6%	7.4%
Mononucleosis	1.8%	2.6%	1.1%	2.7%	0.0%	0.0% *	2.1%	0.6%	2.3%	1.5%
Pelvic inflammatory disease	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Repetitive stress injury	1.8%	1.5%	2.1%	2.1%	1.7%	0.0%	1.5%	2.3%	1.3%	1.9%
Sinus infection	16.4%	8.7%	23.2% *	18.6%	14.4%	6.7% *	17.5%	12.5%	19.3%	14.7%
Strep throat	11.5%	9.0%	13.8% *	13.4%	11.6%	0.0% *	13.6%	3.4% *	13.1%	10.6%
Tuberculosis	0.2%	0.3%	0.2%	0.2%	0.6%	0.0%	0.2%	0.6%	0.3%	0.2%
Urinary tract infection	7.7%	0.8%	13.7% *	8.5%	8.9%	0.0% *	7.8%	7.4%	7.9%	7.8%
At least one of the above	52.3%	42.6%	60.9% *	54.9%	53.0%	35.1% *	52.6%	50.8%	51.6%	52.7%
* p(x <sup>2</sup> ) < .05										

- Graduate/professional students were more likely than undergraduates to report having been diagnosed with or treated for diabetes, genital herpes, and high blood pressure, but less likely than undergraduates to report having been diagnosed with or treated for strep throat.

Across all respondents, the average number of these various health problems they reported having been diagnosed with or treated for in the past year was 1.1, but 47.7% of the respondents reported having none of these health problems – very similar to the 48.4% in 2018, 49.9% in 2016, and 48.1% found in 2014. Among those who were diagnosed with or treated for at least one problem, the average number was 2.1 different problems, virtually the same as in 2018, 2016, 2014, 2012 and 2010.

## RESULTS: Impediments to Academic Performance

Another section of the questionnaire asked respondents if, within the previous twelve months, they had each of 31 different kinds of problems – illnesses, substance abuse, victimization, emotional problems, and other behavioral problems – and, if so, the extent to which the experience affected their academic performance. Table 23 shows the percentage of all respondents who reported not having had each of the various problems, the percentage who said they had the problem but that it did not affect their academic performance, and the percentage who said they had the problem and that, as a result, they received a lower grade on an exam or important project, received a lower grade in a course, received an incomplete or dropped a course, or their thesis or dissertation work was disrupted. The table indicates that the most common health problem was stress which was reported to have been a problem for 67.3% of students (similar to the reported 68.0% in 2018, 66.9% in 2016, 71.0% in 2014, 79.1% in 2012 and 74.8% in 2010) – 35.4% had problems with stress but claimed it did not affect academic performance plus 31.9% who had problems with stress and claimed it did affect academic performance in one of the four ways – this is up slightly from the 29.9% reported in 2018, 26.9% in 2016, 27.6% in 2014, 24.5% in 2012 and the 21.9% in 2010.

The table indicates that the ten most common health problems were:


1. Stress (**67.3%** vs. 68.0% in 2018, 66.9% in 2016, and 71.0% in 2014)
2. Anxiety (**54.2%** vs. 46.7% in 2018, 45.7% in 2016, and 47.3% in 2014)
3. A cold/flu/sore throat (**50.0%** vs. 47.7% in 2018, 43.9% in 2016, and 53.8% in 2014)
4. Sleep difficulties (**49.4%** vs. 46.8% in 2018, 46.2% in 2016, and 49.3% in 2014)
5. Work (**39.0%** vs. 40.0% in 2018, 39.8% in 2016, and 46.6% in 2014)
6. Alcohol use (**36.0%** vs. 36.0% in 2018, 35.0% in 2016, and 48.5% in 2014)
7. Participation in extracurricular activities (**34.7%** vs. 33.2% in 2018, 34.3% in 2016, and 40.5% in 2014)
8. Depression (**34.1%** vs. 28.9% in 2018, 24.8% in 2016, and 25.2% in 2014)



**Table 23. Percentage of Respondents Who Had Various Problems in Past 12 Months That Did or Did Not Affect Academic Performance: 2018**

% Who Had and Academic Performance Affected																
					GENDER		RACE			RESIDENCE		Student Status		CUMULATIVE GPA		
					Male	Female	White	Other	Internatl.	On	Off	Undergrad	Grad/Prof	A	B	C/D/F
Health Problem		% Did Not Have	% Had, No Effect	% Had, Some Effect												
A.	Alcohol use	65.0%	30.6%	4.4%	6.2%	2.8% *	5.0%	4.6%	0.6% *	2.9%	5.2%	5.6%	0.7% *	1.9%	6.4%	16.5% *
B.	Allergies	80.1%	18.6%	1.4%	1.7%	0.9%	1.1%	3.0%	0.0% *	0.7%	1.6%	1.5%	0.7%	0.6%	1.7%	6.0% *
C.	Anxiety	53.3%	25.2%	21.5%	15.0%	27.5% *	22.7%	25.1%	11.0% *	20.1%	22.2%	23.1%	16.7% *	14.8%	27.6%	48.2% *
D.	Assault (physical)	96.6%	2.5%	1.0%	1.4%	0.5%	0.9%	1.3%	0.6%	0.7%	1.0%	1.1%	0.7%	0.3%	0.7%	7.1% *
E.	Assault (sexual)	94.6%	3.7%	1.6%	0.5%	2.7% *	1.4%	3.0%	0.6%	2.2%	1.4%	2.0%	0.7%	0.6%	2.2%	8.3% *
F.	Attention Deficit Disorder	88.7%	3.7%	7.6%	9.0%	6.3%	7.8%	10.3%	3.5% *	5.8%	8.4%	9.0%	3.1% *	3.1%	12.2%	22.6% *
G.	Cold/Flu/Sore Throat	52.3%	32.1%	15.6%	13.3%	17.7% *	16.3%	20.9%	5.8% *	16.5%	15.1%	17.7%	9.2% *	11.0%	21.0%	26.2% *
H.	Concern for troubled friend/family	72.1%	19.2%	8.7%	5.9%	11.4% *	8.0%	13.7%	5.2% *	8.8%	8.7%	8.5%	9.2%	7.3%	9.5%	14.5%
I.	Chronic illness (diabetes, asthma, etc.)	91.0%	4.9%	4.1%	4.1%	4.1%	3.6%	8.1%	0.6% *	2.4%	4.8% *	4.9%	1.4% *	3.4%	4.1%	11.9% *
J.	Chronic pain	91.3%	6.6%	2.1%	1.2%	3.0% *	1.9%	3.4%	1.8%	1.5%	2.5%	2.2%	1.7%	1.7%	2.4%	4.8%
K.	Death of friend or family member	86.2%	8.5%	5.3%	4.8%	5.7%	5.6%	5.1%	4.1%	4.9%	5.5%	5.7%	4.1%	3.1%	8.4%	7.2% *
L.	Depression	71.1%	12.5%	16.4%	14.1%	18.4% *	16.9%	21.5%	7.0% *	16.5%	16.4%	17.7%	11.9% *	11.0%	19.9%	42.9% *
M.	Discrimination	92.9%	5.4%	1.7%	1.4%	2.1%	0.9%	3.0%	4.1% *	1.5%	1.9%	1.7%	1.7%	1.2%	1.9%	7.1% *
N.	Drug use	93.7%	4.1%	2.2%	3.3%	1.3% *	2.0%	4.2%	1.2%	2.2%	2.2%	2.8%	0.7% *	1.6%	2.4%	7.1% *
O.	Eating disorder/problem	95.9%	3.1%	1.0%	1.6%	0.5%	0.9%	1.7%	0.6%	0.2%	1.4%	1.2%	0.3%	0.9%	1.0%	2.5%
P.	Finances	76.7%	18.2%	5.0%	6.1%	4.1%	4.0%	9.5%	4.1% *	1.5%	6.8% *	5.8%	2.4% *	2.5%	7.2%	16.5% *
Q.	Gambling	97.6%	2.3%	0.1%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	1.2% *
R.	Homesickness	75.9%	21.1%	3.0%	2.1%	3.8%	2.1%	4.7%	4.1%	3.4%	2.7%	2.7%	3.8%	2.3%	4.3%	2.4%
S.	Injury	90.5%	7.3%	2.3%	2.4%	2.2%	1.7%	3.0%	4.1%	0.7%	3.0% *	2.4%	1.7%	2.2%	2.4%	2.4%
T.	Internet use/computer games	69.9%	19.4%	10.7%	15.5%	6.3% *	9.7%	13.2%	11.8%	11.9%	10.2%	12.7%	4.5% *	8.9%	13.4%	15.3% *
U.	Learning disability	96.1%	1.6%	2.3%	2.2%	2.4%	2.2%	3.4%	1.2%	2.2%	2.4%	2.9%	0.7% *	1.0%	2.7%	11.9% *
V.	Participation in extracurricular activities	66.8%	24.9%	8.3%	7.2%	9.3%	8.1%	13.2%	2.4% *	9.0%	8.0%	10.4%	1.7% *	6.4%	11.5%	9.5% *
W.	Pregnancy (self or partner)	98.8%	0.6%	0.6%	0.9%	0.5%	0.4%	0.9%	1.2%	0.0%	1.0% *	0.3%	1.7% *	0.3%	1.0%	1.2%
X.	Relationship difficulty	74.5%	16.1%	9.4%	10.8%	8.0%	8.9%	9.9%	10.7%	8.8%	9.6%	10.6%	5.8% *	5.7%	14.7%	15.7% *
Y.	Roommate difficulties	75.2%	19.8%	5.0%	5.4%	4.6%	5.2%	7.3%	1.2% *	5.9%	4.5%	6.1%	1.7% *	3.5%	7.0%	8.3% *
Z.	Sexually transmitted disease	98.2%	0.8%	1.0%	1.4%	0.6%	0.7%	2.1%	0.6%	1.0%	1.0%	1.2%	0.3%	0.4%	1.0%	4.8% *
AA.	Sinus/ear infection, bronchitis, strep	84.9%	10.3%	4.9%	4.8%	4.9%	4.7%	6.4%	3.5%	4.9%	4.8%	5.9%	1.7% *	3.6%	5.7%	9.5% *
BB.	Sleep difficulties	53.2%	28.6%	18.2%	16.2%	20.0%	18.2%	24.8%	9.4% *	18.5%	18.0%	21.2%	8.9% *	12.7%	22.2%	44.0% *
CC.	Stress	32.0%	38.9%	29.1%	24.2%	33.6% *	28.9%	37.9%	17.8% *	27.8%	29.7%	31.7%	21.2% *	22.5%	34.0%	58.8% *
DD.	Work	60.0%	27.5%	12.5%	9.8%	14.8% *	12.9%	15.5%	6.5% *	7.1%	15.2% *	13.8%	8.5% *	9.8%	14.3%	28.6% *
EE.	Other	97.5%	0.6%	1.9%	1.7%	1.8%	1.0%	3.3%	4.6% *	0.8%	2.5%	1.9%	2.0%	1.3%	1.5%	7.7% *
* p(x <sup>2</sup> ) < .05																

\*  $p(\chi^2) < .05$

- 
9. Internet use/computer games (**30.3%** vs. 30.1% in 2018, 37.1% in 2016, and 42.2% in 2014)
  10. Concern for a troubled friend/family member (**29.9%** vs. 27.9% in 2018, 29.1% in 2016, and 32.3% in 2014)

The eight least common problems were:

1. Chronic pain (8.3%)
2. Eating disorders/problems (8.2%)
3. Sexual assault (4.2%)
4. Learning disabilities (3.3%)
5. Physical assault (3.1%)
6. Gambling (2.8%)
7. Pregnancy (1.6%)
8. Sexually transmitted disease (1.5%)

The first five most common problems are the same five problems as were reported in 2018. The only difference is that ordering of colds/flu/sore throat, anxiety, and sleep difficulties switched around. The same issues made up the second five most common problems as in 2018 but with depression and internet use/gaming trading places.

The eight least common problems include the same set of problems as in 2018 except that chronic pain replaced drug use. However, the ordering of the eight least common problems in 2020 varies from 2018. For most of these eight problems, the difference in the percentages who reported experiencing the problem for 2018 and 2020 is less than the margins of error for the samples, so the change in the ordering of these eight problems means little.

Figure 20 shows the percentage of students who reported experiencing problems with various circumstances and the portion of these who also reported their academic performance was impaired by having the problem in the past year. The problems are listed in descending order of prevalence. The figure indicates that not all problems, if experienced, were equally likely to adversely impact academic performance.

This can be more clearly seen in Figure 21. This figure shows only the percentages of students who reported their academic performances were adversely impacted if they experienced the problem at all.

Comparing Figures 20 and 21 makes it clear that many students experience difficulties with some problems but manage the problem without it affecting their academic work. For example, more students report experiencing problems with alcohol use than with depression (36.0% vs. 34.1%), but far more students report that their academic performance was impaired by depression than by alcohol use (20.4% vs. 4.3%).

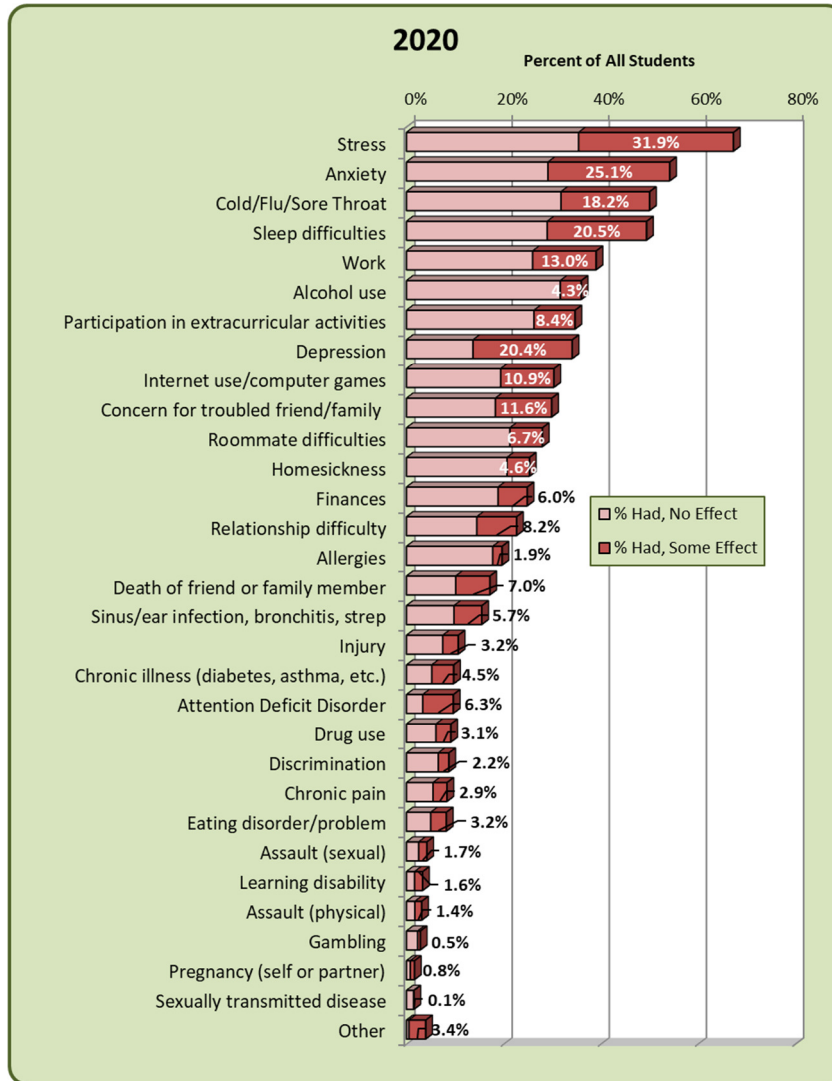


Figure 20. Percentage of Students Whose Academic Performance Was Impaired by Problems Encountered During Year, 2020

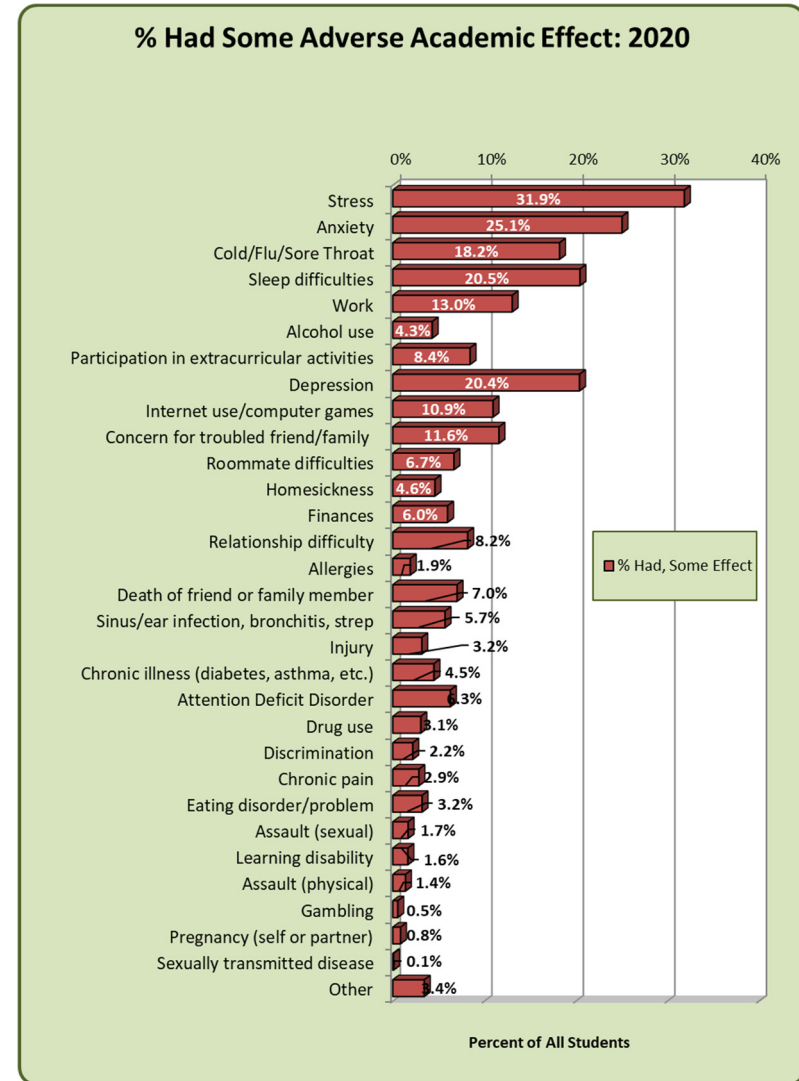


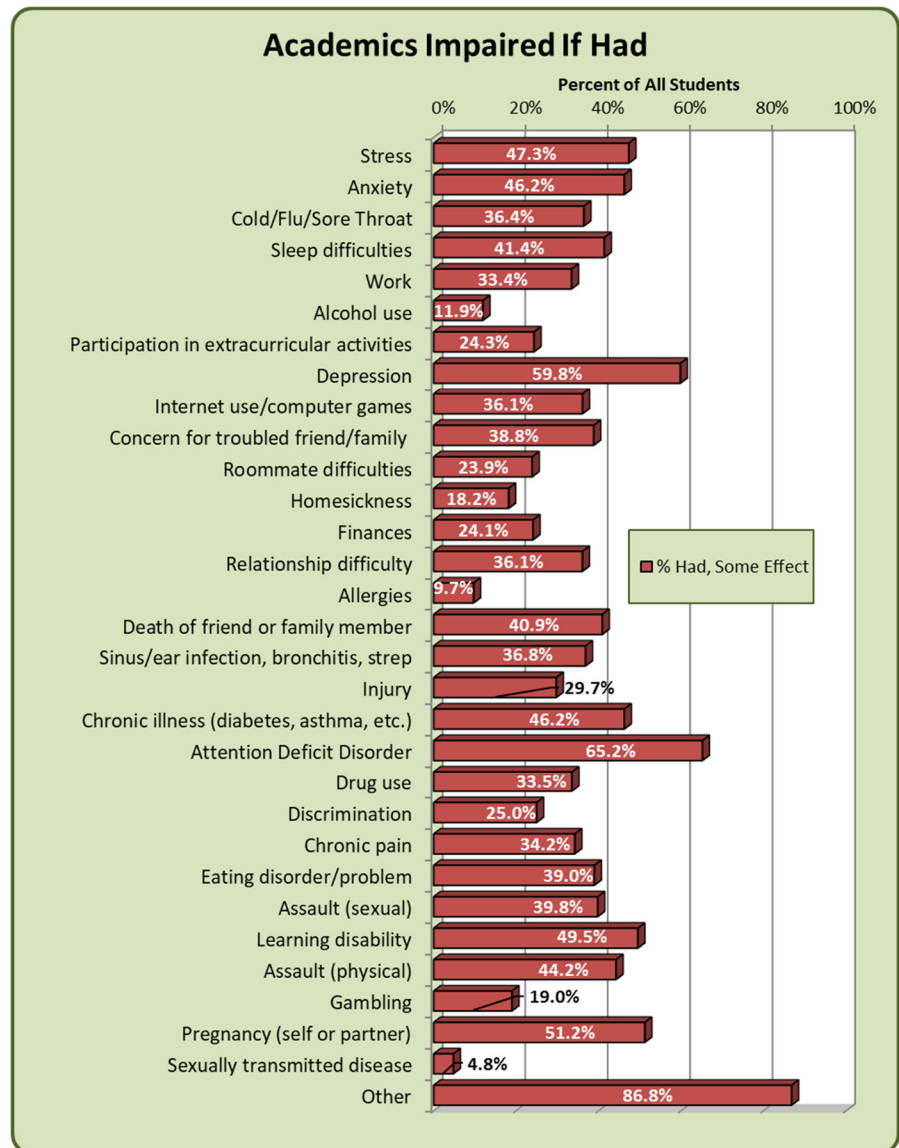
Figure 20. Percentage of Respondents Academically Impaired by Various Health-Related Problems: 2020

There are also some problems which only a few students experience, but for those who do, the likelihood of academic impairment is quite great. This is more clearly seen in Figure 22. As Figure 20 shows, many students report experiencing roommate difficulties and few report problems with Attention Deficit Disorder (ADD), but Figure 22 indicates that, while 24% of those who experienced roommate problems were impaired academically as a result, 65% of those experiencing problems with ADD were academically impaired as a result. Besides ADD, depression, pregnancy, and learning disabilities are also examples of relatively uncommon problems that appear to be highly likely to affect adversely the individual's academic performance.

On the other hand, the figures indicate there are other problems that are quite commonly experienced – such as stress, anxiety or sleep difficulties – which also are very likely to adversely impact academic performance if encountered.

Table 23 indicates that the academic performances of some types of students were more likely to be impaired by the various health-related problems than others. The table indicates that:

- Females were more likely than males to report academic impairment as a result of anxiety, cold/flu/sore throat, concern for a troubled friend/family member, depression, an eating disorder, homesickness, participation in extracurricular activities, roommate difficulties, sinus/ear infections, sleep difficulties, stress, and work, while males were more likely than females to report impairment as a result of drug use.



**Figure 21. Percentage of Those Whose Academic Performance Impaired If Experienced Particular Problem During Year, 2020**

- White and Other domestic respondents were more likely than international students to report academic impairment as a result of anxiety, depression, drug use, and stress, while international students were more likely than domestic students to report academic impairment as a result of physical assault, discrimination, and relationship difficulties.
- Off-campus respondents were more likely than their on-campus counterparts to report academic impairment as a result of work problems and less likely to report academic impairment as a result of a cold/flu/sore throat or homesickness.
- Undergraduates were more likely than graduate/professional students to report academic impairment as a result of alcohol use, a cold/flu/sore throat, chronic pain, depression, drug use, participation in extracurricular activities, sinus/ear infection/bronchitis/strep throat, and sleep difficulties.
- There were statistically significant differences in the percentages who reported academic impairment on 16 of the 31 health-related types of problems among respondents with different grade point averages. In general, respondents with lower grade point averages were more likely than their counterparts to report having been academically impaired “as a result” of the problem. This is very similar to the pattern found in each of the other surveys since 2010.

The patterns described above have been very similar across the last five NCHA surveys. Here we repeat the comment we have made in the previous reports as well:

***It may be very useful to inform students how much their success in college may be directly influenced by these various problems. Some of the problems (e.g., participation in extracurricular activities, alcohol use, internet use) are within their power to prevent or control. Others (e.g., financial difficulties, death of a family member or friend, assault) may not be within their ability to prevent but may be managed or coped with more or less well. Making students aware of the prevalence of these problems and their potential impacts while also encouraging them to seek assistance and identifying resources available at the University seems key to improving students' chances to thrive and succeed. Troubles will come. Success is usually still an option. “***

In the next section, we examine results of questions intended to gauge the distribution and utility of information provided to students by the University to help them cope or thrive while at MSU.

## RESULTS: Distribution of Health Information on Campus

Respondents were asked to indicate whether or not they had ever received health-related information from MSU on each of a variety of health topics and about which of these they are interested in receiving information. Table 24 shows the percentages of all respondents, for each topic, who claimed to have received information from MSU. The table indicates that:

The five topics about which the greatest percentages of respondents reported receiving information were: Sexual assault/relationship violence, Alcohol and other drug use prevention, Depression/anxiety, Relationship difficulties, and Cold/flu/sore throat. The five topics about which the fewest said they received information were Problem use of the internet/computer games, Eating disorders, Injury and violence prevention, Sleep difficulties, and Grief and loss.

- 96.0% reported receiving information on sexual assault/relationship violence prevention (up slightly from 94.6% in 2018, 91.0% in 2016, 75.8% in 2014, 73.8% in 2012, 66.9% in 2010, 45.6% in 2008 and 49.1% in 2006) – the increase in the latter is consistent with the implementation of a mandatory sexual assault/relationship violence prevention program begun a decade ago for all freshmen.
- More than eight out of ten (84.6%) reported receiving information on alcohol and other drug use prevention – virtually the same as the 81.3% reported in 2018 and 80.3% reported in 2016, which was up from the 74.4% reported in 2014, 72.2% in 2012 and 71.7% in 2010.
- Seven out of ten (73.9%) reported receiving information about depression/anxiety – up slightly from 70.0% in 2018, 65.4% in 2016 and 52.7% in 2014.
- Roughly six out of ten reported receiving information on
  - Stress reduction (62.2% – down slightly from the 64.7% in 2018 and 65.7% in 2016, which were up from 55.3% in 2014;
  - Preventing sexually transmitted diseases or infections (62.9%) – virtually the same as the 62.3% in 2018 and 65.2% in 2016, which was up from 58.0% in 2014;
  - Preventing colds, flu, and sore throats (64.2%) – slightly greater than the 60.8% in 2018, 60.1% in 2016, but still less than the 69.6% in 2014.
- Roughly half reported receiving information about
  - Physical activity (55.4% – down from the 61.1% in 2018 and 63.2% in 2016, which were up from 58.3% in 2014;
  - How to help others in distress (55.1%) – similar to the 53.5% found in 2018, which was up from 46.8% in 2016, 37.0% in 2014, 34.1% in 2012, and 26.4% in 2010; and

Table 24. Percentage of Respondents Who Ever Received				
Health Topic	All Respondents			
	% Who Ever Received Information	% Interested In Receiving Information	Received	
			No	Yes
			Want Info	Want More
Alcohol and other drug use prevention	84.6%	39.9%	26.2%	42.5%
Cold/flu/sore throat	64.2%	48.9%	40.1%	54.0%
Depression/anxiety	73.9%	66.8%	65.0%	67.8%
Eating disorders	28.5%	46.5%	47.1%	45.8%
Grief and loss	36.3%	53.9%	53.4%	53.6%
How to help others in distress	55.1%	68.2%	68.3%	68.8%
Injury and violence prevention	33.0%	47.6%	44.9%	53.6%
Nutrition	51.4%	66.1%	66.4%	65.7%
Physical activity	55.4%	61.7%	59.2%	63.6%
Pregnancy prevention	44.8%	45.5%	43.4%	48.5%
Problem use of internet/computer games	16.6%	28.1%	24.9%	44.3%
Relationship difficulties	68.2%	50.2%	43.6%	53.3%
Sexual assault/relationship violence prevention	96.0%	57.7%	41.2%	58.5%
STD/I prevention	62.9%	55.2%	52.2%	56.9%
Sleep difficulties	33.9%	64.3%	61.8%	68.9%
Stress reduction	62.2%	73.8%	74.4%	73.5%
Suicide prevention	50.4%	59.1%	58.6%	60.0%
Tobacco use	46.3%	34.7%	31.4%	38.5%
Violence prevention	58.1%	52.2%	45.6%	57.0%
<b>None of the above</b>	<b>4.2%</b>	<b>16.6%</b>	--	--

- Suicide prevention (50.4%) – compared to the 51.2% in 2018, 47.8% in 2016, 38.5% in 2014, 38.2% in 2012, and 28.3% in 2010. The increases had been consistent with the implementation of suicide prevention and help-seeking education modules in the academic orientation program for incoming freshmen in the past decade.
- A third (33.9%) reported receiving information regarding sleep difficulties– similar to the 34.3% reported in 2018, 31.0% in 2016 and 23.5% in 2014 – noteworthy in light of the percentage of students who reported experiencing sleep problems and academic impairment as a result of sleep difficulties.
- 4.2% claimed never to have received information from the University on any of these topics.

Respondents were also asked to indicate if they would be interested in receiving information on each of these topics. Table 24 shows the results for this also.



Typically, 30-60% of respondents indicated interest in receiving information on the topics. The greatest percentages of students expressed interest in receiving information on stress reduction (73.8%), how to help others in distress (68.2%), depression/anxiety (66.8%) nutrition (66.1%), sleep difficulties (64.3%), and physical activity (61.7%)– a very similar list to those of the previous five surveys.

Most of these are issues that many students face in the course of the year and are also identified by many students as impediments to the academic performance. It is noteworthy that sleep difficulties is the issue about which one of the greater percentages of students say they want information but one of the issues about which a smaller percentage of students report having received information yet.

In the table, we also show the percentage of students who expressed an interest in receiving information on each topic comparing those who said they had not already received information to those who said they had. Typically, those who reported having received information on a topic were more likely to indicate an interest in receiving more information than were those who said they had never received any information on the topic. This seems to suggest those who received information found it interesting or useful, and that it piqued their interest for more (perhaps) detailed information.

## RESULTS: Special Topics

The results reported thus far have been based on standard questions included in the NCHA questionnaire (Version II). However, from time to time, MSU officials choose to include additional questions on the NCHA questionnaire to be administered at MSU. Sometimes these have been extra questions related to topics already covered on the NCHA, while at other times the additional questions have been on other topics of interest to MSU that are otherwise not addressed or not fully addressed by the standard NCHA questionnaire. In 2020, MSU added a number of questions of both types, i.e., those that expand on topics already addressed, and those that address new topics.

As in 2016 and 2018, one of the additional topics that MSU wanted to explore in 2020 had to do with the implementation of a tobacco-free campus policy and student exposure to second-hand smoke and other tobacco-related by-products. In 2020 as in 2018, MSU wanted to investigate a set of questions focused on campus safety and fears. The results for each of these additional items will be presented in this section of the report.

**TOBACCO-FREE CAMPUS AND SECOND-HAND EXPOSURE TO TOBACCO PRODUCTS.** In late 2015, MSU began consideration of a policy change to ban the use of tobacco products from all MSU properties (i.e., building, campus grounds and facilities, motor vehicles, extension sites, farms, etc.). In order to measure the support or opposition to such a policy change and to measure its impact once implemented, three questions were added to the 2016 NCHA questionnaire. In 2018 and 2020, these questions were asked again – with minor modifications to reflect the actual implementation of the policy



change – to examine what changes may have occurred regarding exposure to second-hand smoke and tobacco residues and opinions regarding the policy change.

The first question was intended to measure respondents' exposure to the use of tobacco products on campus prior to implementation. This two-part Yes/No question asked was:

*In the past month, have you. . .*

- a. *experienced even brief exposures to second-hand tobacco smoke anywhere on campus?*
- b. *noticed smoking-related litter or other tobacco-related residues anywhere on campus?*

The second question concerned the respondents' awareness that such a policy change had been implemented. And the third question asked the respondents' their opinion regarding the policy change. The wording of these questions in 2018 and 2020 were as follows:

*Are you aware that MSU enacted a Tobacco Free Campus policy two years ago?*

*Do you favor or oppose a 'tobacco free campus' policy at MSU?*

Table 25 shows the results for these questions both overall for each of the three surveys and within selected demographic groups of students for 2020. The table indicates that:

- 55.0% of respondents reported exposure to second-hand smoke in the past month – down slightly from 56.8% in 2018 and 70.6% in 2016 – and 52.1% reported encountering tobacco-related litter or trash – unchanged from the 52.4% in 2018 which was appreciably lower than 63.6% in 2016.
  - Males were more likely than females to report having been exposed to second-hand smoke.
  - White domestic students, younger respondents, and undergraduates were more likely than their counterparts to report both exposure on campus and having noticed tobacco-related waste.
- Nine out of ten respondents (90.6%) said they were aware that the University had enacted a Tobacco-Free Campus policy two years earlier – virtually the same as the 90.5% reported in 2018.
  - Domestic students, younger students, and undergraduates were more likely than their counterparts to report being aware that such a policy change took place.
- Nine out of ten (89.9%) respondents said they favored the policy change – also virtually the same as the 89.2% in 2018, which was up substantially from the 83.1% who claimed to support the proposed change two years earlier.
  - Females were more likely than males to support the policy change.

Table 25. Responses Regarding Experiences with Second-Hand Smoke, Tobacco Residues, and Familiarity with and Attitudes Toward Tobacco-Free Campus Policy, by Background Characteristics: 2020																			
Questions					% Of Respondents														
					GENDER		RACE/ETHNICITY			Age Group				Student Status					
					Male	Female	White Domestic	Other Domestic	Internatl.	18-19	20-21	22-23	24 or older	Undergrad	Grad/Prof				
In the past month, have you experienced anywhere on campus ...					2016	2018	2020												
... even brief exposures to second- hand tobacco smoke?					Yes	70.6%	56.8%	55.0%	58.8%	51.5% *	60.4%	50.3%	30.9% *	54.7%	62.4%	54.2%	41.1% *	58.4%	42.0% *
					No	29.4%	43.2%	45.0%	41.2%	48.5%	39.6%	49.7%	69.1%	45.3%	37.6%	45.8%	58.9%	41.6%	58.0%
... noticed smoking-related litter or other tobacco-related residues?					Yes	63.6%	52.4%	53.4%	57.2%	50.1% *	58.8%	43.2%	40.9% *	55.8%	55.5%	54.9%	44.9%	56.1%	42.9% *
					No	36.4%	47.6%	46.6%	42.8%	49.9%	41.2%	56.8%	59.1%	44.2%	44.5%	45.1%	55.1%	43.9%	57.1%
In the past few years, some universities in the U.S adopted 'tobacco free campus' policies. Typically, a 'tobacco free campus' policy bans smoking and the use of all tobacco products on or in any university property, buildings and vehicles and applies to all students, faculty, staff and visitors.					2016	2018	2020												
Are you aware that MSU enacted a Tobacco Free Campus policy?					Yes	62.5%	90.5%	90.6%	91.7%	89.6%	91.4%	90.6%	86.0%	93.2%	96.2%	90.2%	75.6% *	95.3%	73.1% *
					No	37.5%	9.5%	9.4%	8.3%	10.4%	8.6%	9.4%	14.0%	6.8%	3.8%	9.8%	24.4%	4.7%	26.9%
Do you favor or oppose a 'tobacco free campus' policy at MSU?***					Favor	83.1%	89.2%	89.9%	85.3%	94.2% *	89.3%	91.8%	90.4%	86.2%	92.3%	87.5%	91.8%	89.1%	93.2%
					Oppose	16.9%	10.8%	10.1%	14.8%	5.8%	10.7%	8.2%	9.6%	13.8%	7.7%	12.5%	8.2%	10.9%	6.8%
* p(χ2) < .05																			

\*  $p(\chi^2) < .05$ 

\*\* Asked as "Are you aware that MSU is moving toward enacting a policy to become a Tobacco Free Campus?" in 2016

\*\*\* Asked as "Would you favor or oppose implementation of a 'tobacco free campus' policy at MSU?" in 2016

- 18-19 year-old students were less likely than other students to support the policy change
- Graduate/professional students were more likely to support the policy change than were undergraduates.
- There were no significant differences in support for the policy change based on race/ethnicity.

**Fear of Victimization.** Over the past decade, MSU has focused more sharply on preventing sexual assault and addressing the needs of victims. Some of this effort has involved educating students about legal issues regarding consent and what constitutes assault. Some of this effort has involved clarifying in what kinds of situations sexual assault might occur and how to respond to ward off an attempted assault. And some of the effort has focused on supporting victims, reporting incidents, and apprehending and prosecuting perpetrators.

Earlier in this report, the results of questions regarding perceptions of safety on campus or in the community off campus were presented that indicated that there has been a gradual decline in respondents' feelings of safety on campus – at least during the daytime – and a gradual decline regarding feelings of safety off campus in the community both during the daytime and nighttime. At the same time, this report has indicated that the actual percentage of students who report being victimized has declined (by 7%) since 2000, but that reported sexual assault has increased.

In this context, some MSU staff requested that questions be included in the 2018 and 2020 NCHA at MSU to attempt to ascertain where on or near campus students seemed to be most apprehensive of the possibility of being sexually assaulted. Respondents were presented the following question:

*“Thinking about the risk of being sexually assaulted or harassed, how safe do you feel in . . .”* and were then given a list of different settings and asked to indicate for each if they felt very safe, somewhat safe, somewhat unsafe, or not safe at all in the setting. The list of settings included an off-campus party not sponsored by a fraternity, a party sponsored by a fraternity house either at the chapter house or another location, an MSU team athletic event, in faculty or graduate student offices, at a football tailgate, and in the library. Table 26 shows the results.

The table indicates that eight out of ten students judged it to be very safe in the MSU library (86.6%) and in faculty or graduate student offices (80.7%). Roughly half judged it to be very safe at athletic event (57.0%) or at a football tailgate (47.6%).

The setting where respondents most perceived a risk of sexual assault was a party sponsored by a fraternity house either at the chapter house or another location. Less than one in five respondents judged these two locations to be very safe: at a party at a fraternity or sorority house (16.1%), at a party sponsored by a fraternity or sorority at other locations (19.1%).

Nearly half the respondents (45.6%) judged parties at fraternity or sorority houses to be somewhat unsafe or not safe at all. In fact, 16.2% of respondents judged this setting to be not safe at all.

Table 26. How Safe or Unsafe Respondents Feel Regarding Risk of Sexual Assault/Harrassment in Various Campus Locations, by Background Characteristics: 2020																
Thinking about the risk of being sexually assaulted or harassed, how safe do you feel in . . .			% Of Respondents **													
			GENDER		RACE/ETHNICITY			STUDENT STATUS		SEXUAL ORIENTATION				VICTIMIZED IN PAST YEAR***		
			Male	Female	White Domestic	Other Domestic	Internatl.	Under-grad	Grad/ Prof	Hetero- sexual	Homo-sexual/ Gay/Lesbian	Bisexual	Unsure/ Other	Yes	No	
OVERALL																
An off-campus party not sponsored by a fraternity	Not Safe at All	11.0%	13.3%	8.3% *	7.7%	13.1%	30.3% *	10.4%	14.3%	10.0%	5.6%	20.6%	20.0%	11.3%	10.8%	
	Somewhat Unsafe	23.4%	30.9%	14.9%	22.0%	26.8%	25.8%	23.6%	22.3%	23.3%	25.0%	22.1%	26.7%	21.7%	24.1%	
	Somewhat Safe	39.8%	44.3%	34.8%	39.7%	43.1%	33.3%	41.0%	33.0%	39.7%	41.7%	42.6%	26.7%	41.2%	39.2%	
	Very Safe	25.8%	11.5%	42.0%	30.5%	17.0%	10.6%	25.0%	30.4%	27.0%	27.8%	14.7%	26.7%	25.8%	25.9%	
A party at a fraternity or sorority house	Not Safe at All	16.2%	17.3%	14.7% *	14.0%	16.8%	30.2% *	14.9%	24.2%	11.9%	42.9%	37.5%	23.1% *	18.3%	15.2%	
	Somewhat Unsafe	29.4%	33.5%	24.7%	28.4%	35.6%	22.2%	29.2%	30.3%	29.1%	28.6%	31.3%	30.8%	26.4%	31.0%	
	Somewhat Safe	38.3%	39.6%	36.9%	37.7%	38.3%	42.9%	39.7%	30.3%	40.3%	28.6%	28.1%	30.8%	38.9%	38.0%	
	Very Safe	16.1%	9.6%	23.7%	19.8%	9.4%	4.8%	16.2%	15.2%	18.7%	0.0%	3.1%	15.4%	16.3%	15.8%	
Parties sponsored by Fraternities or Sororities at other locations	Not Safe at All	12.4%	14.0%	10.6% *	10.0%	14.0%	27.4% *	11.2%	19.8% *	10.7%	12.5%	26.2%	23.1% *	11.5%	12.8%	
	Somewhat Unsafe	27.9%	31.3%	23.8%	27.9%	28.7%	25.8%	27.2%	32.3%	25.8%	56.3%	30.8%	30.8%	31.0%	26.5%	
	Somewhat Safe	39.9%	41.6%	37.7%	38.1%	45.3%	38.7%	41.7%	29.2%	41.0%	28.1%	36.9%	30.8%	36.5%	41.3%	
	Very Safe	19.8%	13.1%	27.8%	24.0%	12.0%	8.1%	20.0%	18.8%	22.5%	3.1%	6.2%	15.4%	21.0%	19.4%	
In faculty or graduate assistant offices	Not Safe at All	1.7%	1.9%	1.3% *	0.4%	3.0%	8.1% *	1.6%	1.9%	1.2%	0.0%	5.8%	5.3% *	3.0%	1.1%	
	Somewhat Unsafe	2.1%	3.4%	0.8%	1.7%	3.0%	3.5%	2.2%	1.9%	1.7%	4.7%	4.3%	5.3%	3.0%	1.8%	
	Somewhat Safe	15.5%	20.8%	9.6%	14.5%	20.7%	11.6%	16.2%	13.1%	14.6%	14.0%	20.3%	36.8%	14.7%	15.9%	
	Very Safe	80.7%	73.8%	88.3%	83.5%	73.2%	76.7%	80.0%	83.1%	82.5%	81.4%	69.6%	52.6%	79.2%	81.2%	
MSU Library	Not Safe at All	1.4%	2.1%	0.5% *	0.4%	1.2%	8.0% *	1.4%	1.3%	0.9%	0.0%	6.8%	0.0% *	3.0%	0.7%	
	Somewhat Unsafe	1.1%	0.2%	2.1%	0.2%	1.7%	5.7%	1.1%	1.3%	1.0%	2.4%	1.4%	0.0%	0.9%	1.2%	
	Somewhat Safe	10.9%	15.6%	5.7%	7.7%	16.9%	20.5%	11.4%	9.0%	10.1%	11.9%	12.3%	31.6%	10.6%	11.0%	
	Very Safe	86.6%	82.0%	91.7%	91.8%	80.2%	65.9%	86.2%	88.4%	87.9%	85.7%	79.5%	68.4%	85.5%	87.0%	
At a tailgate	Not Safe at All	2.6%	3.8%	1.4% *	1.4%	2.5%	10.5% *	2.4%	3.0%	2.1%	0.0%	10.6%	0.0% *	4.0%	2.1%	
	Somewhat Unsafe	9.6%	11.4%	7.9%	6.7%	14.7%	18.4%	9.4%	10.5%	8.9%	11.4%	10.6%	29.4%	10.2%	9.4%	
	Somewhat Safe	40.1%	49.1%	30.1%	38.5%	44.8%	40.8%	40.2%	39.8%	37.9%	60.0%	43.9%	58.8%	40.3%	40.0%	
	Very Safe	47.6%	35.7%	60.6%	53.4%	38.0%	30.3%	48.0%	46.6%	51.1%	28.6%	34.8%	11.8%	45.6%	48.6%	
An athletic event	Not Safe at All	2.9%	4.2%	1.6% *	1.3%	2.5%	13.9% *	3.0%	2.2%	2.2%	2.6%	11.8%	0.0% *	5.3%	1.9% *	
	Somewhat Unsafe	4.7%	5.5%	3.8%	2.7%	6.1%	13.9%	4.1%	7.3%	4.0%	10.5%	10.3%	0.0%	5.3%	4.5%	
	Somewhat Safe	35.4%	42.4%	27.6%	31.4%	47.2%	38.0%	35.4%	35.8%	34.1%	47.4%	36.8%	52.9%	38.5%	34.1%	
	Very Safe	57.0%	47.9%	66.9%	64.6%	44.2%	34.2%	57.5%	54.7%	59.7%	39.5%	41.2%	47.1%	50.9%	59.6%	
*p(x2) < .05																

\* p( $\chi^2$ ) < .05

\*\* Excludes respondents who indicated the question was "not applicable" -- varied from 4.2% regarding in MSU Library to 22.3% regarding a parties sponsored by fraternities or sororities at other locations

\*\*\* Reported being victimized in the past 12 months in one or more of the ways listed in Table 17

The table compares the judgement for each setting across categories of sex, race, student status, sexual orientation, and whether or not the respondent reported having been a victim (as listed in Table 17) in the past year. In general, the table indicates that:

- Females judged each of the settings to be less safe than did males;
- White domestic students tended to judge each of the settings as safer than did Other domestic or international students;
- Graduate/professional students judged fraternity-sponsored parties as less safe than did undergraduates, but otherwise the graduate/professional students did not differ from undergraduates regarding the safety of the settings;
- Heterosexual respondents judged fraternity/sorority hosted or sponsored parties, tailgates, MSU team athletic events, faculty or graduate student offices, and the library to be safer than did non-heterosexuals; and,
- Respondents who had reported being victimized in some way during the previous twelve months judged MSU team athletic events to be less safe than did non-victims.

In fairness, it is important to note that a much larger percentage of current members of Greek fraternities or sororities judged parties hosted by a fraternity to be very or somewhat safe than did non-members so some of the apprehension of the risk of harassment or sexual assault in such settings may be based on stereotypes or rumors more than facts. Although the number of respondents is small, it is also important to note that members of sororities were much more likely to judge parties hosted by fraternities or sororities as safer than parties not hosted by fraternities or sororities.

It seems reasonable to suspect that respondents' judgments as to the safety or riskiness of the settings at least partly reflects their personal experience or the experience of their friends in the various settings. If so, then the settings in which females perceived substantially greater risk than males, or sexual minorities perceived greater risk than heterosexuals may have some basis in the factual experiences of those types of individuals. If that is the case, then some of the settings could be more directly targeted by policy, education, or oversight to reduce harmful language and behaviors.

## SUMMARY

This report has summarized key results of the 2020 NCHA survey of MSU students based on NCHA II. It is an overview of the results rather than an exhaustive statistical exploration of any particular topic. The focus of the analyses has been the prevalence of various health-related behaviors, problems, or conditions among MSU students.

In some parts of the summary, we have compared the results of the survey administered in 2020 to the results from the surveys administered in even-numbered years from 2000 to 2018. Generally, the same sampling plan has been used for each of the surveys and they were administered at virtually the same time in the University calendar.

As was noted early in the report, the questionnaire used in 2010 through 2018 (NCHA II) had been greatly redesigned compared to the questionnaire used in the five earlier surveys. Some questions had been added, some in the earlier version had been dropped, some response options had been changed substantively or in format, and some time period references about which respondents were to provide information on events had been changed. It was also noted that ACHA greatly revised the questionnaire again in 2020. While the newer NCHA questionnaire may actually be more informative in the long run, the short-term impact of the revision has been that the results for many questions in NCHA III cannot meaningfully be compared to those from the earlier surveys. Using the NCHA II questionnaire and a somewhat smaller sample than usual, this report has endeavored to show trends over time through 2020. Many of the items tracked in this way will no longer be comparable based on NCHA III surveys.

What has continued to be impressive has been the consistency of the findings for many of the questionnaire items from one survey year to the next since 2000. The primary exceptions to this consistency are in health areas that reflect changes in the larger economy that impacts students' financial uncertainties, episodic outbreaks of infectious diseases from year to year, and health education initiatives implemented within the university. In these areas, the inconsistencies in the findings from other years virtually always match what the presumed impacts of such circumstances and efforts would be. This adds credibility to the survey's findings both overall and on individual health items even when differences from year to year appear to be relatively small.

The American College Health Association is the professional association of college and university student health officers. In addition to development and administration of the NCHA to assess the current health of students, they develop a vision regarding where the profession should try to improve health for the population they serve. In the early 2000's they promulgated a set of health goals for the year 2010. In 2011, a task force within ACHA reviewed the results of NCHA and other surveys of students at colleges and universities across the country and updated the goals for the year 2020 – the Healthy Campus 2020 Goals.

In the Appendix A of this report, we have included a table listing all 54 of the Healthy Campus 2020 Goals. By design, the status of any college or university relative to 50 of the 54 goals can be assessed by specific questions included in the NCHA questionnaire. In the table of the Appendix, we have printed both the goal for each and the appropriate 2020 and 2018 NCHA survey results for MSU students overall and separately

among undergraduates and graduate/professional students. The table also notes for each goal whether, at the beginning of 2020, MSU had met the goal or not. This is being provided for information purposes rather than to judge the performance of the current health promotion programs at the University.

The results reported here represent an overview. Much additional analysis is possible that might answer more specific questions about the health, health behaviors, and academic circumstances of MSU students. Nevertheless, much of the analyses covered here might be informative to students regarding what they might do to optimize their attempts to thrive while at MSU and to university administrators who wish to build the supportive environments that lead to student success. That is the continuing goal of the reports of this regularly administered survey.

# **APPENDIX A:**

## **HEALTHY CAMPUS 2020 GOALS AND MSU STATUS, 2020**





	Topic Area: Health Impediments to Academic Performance	Baseline 2010	Target 2020	Target 2020	MSU STATUS: 2018				MSU STATUS: 2020			
					ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
AI-1.1	Reduce the proportion of students who report that their academic performance was adversely affected by stress in the past 12 months.	27.4%	24.7%	≤ 24.7%	29.1%	31.7%	21.2%		31.9%	33.0%	27.8%	
AI-1.2	Reduce the proportion of students who report that their academic performance was adversely affected by sleep difficulties in the past 12 months.	20.0%	18.0%	≤ 18.0%	18.2%	21.2%	8.9%		20.5%	22.6%	11.9%	
AI-1.3	Reduce the proportion of students who report that their academic performance was adversely affected by anxiety in the past 12 months.	18.3%	16.5%	≤ 16.5%	21.5%	23.1%	16.7%		25.1%	26.0%	21.7%	
AI-1.4	Reduce the proportion of students who report that their academic performance was adversely affected by cold/flu/sore throat in the past 12 months.	18.0%	16.2%	≤ 16.2%	15.6%	17.7%	9.2%	✓	18.2%	21.4%	6.3%	
AI-1.5	Reduce the proportion of students who report that their academic performance was adversely affected by work in the past 12 months.	13.7%	12.3%	≤ 12.3%	12.5%	13.8%	8.5%		13.0%	13.1%	13.1%	
	Topic Area: Health Communication/Health IT/ECBP	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
HC HC/HIT-a	(Developmental) Increase proportion of students who report that their healthcare providers have satisfactory communication skills.	TBD	TBD	TBD								
ECBP-7.2	Increase the proportion of students who report receiving information on injury prevention from their institution.	28.8%	31.7%	≥ 31.7%	32.7%	35.1%	25.7%	✓	33.0%	32.5%	34.5%	✓
ECBP-7.3	Increase the proportion of students who report receiving information on violence prevention from their institution.	36.0%	39.6%	≥ 39.6%	57.9%	60.4%	50.2%	✓	58.1%	59.9%	51.1%	✓
ECBP-7.4	Increase the proportion of students who report receiving information on suicide prevention from their institution.	30.1%	33.1%	≥ 33.1%	51.2%	54.3%	41.5%	✓	50.4%	51.9%	44.6%	✓
ECBP-7.5	Increase the proportion of students who report receiving information on tobacco use from their institution.	35.1%	38.6%	≥ 38.6%	49.2%	55.2%	30.3%	✓	46.3%	50.0%	31.8%	✓
ECBP-7.6	Increase the proportion of students who report receiving information on alcohol and other drug use from their institution.	64.8%	71.3%	≥ 71.3%	81.3%	88.9%	57.3%	✓	84.6%	90.7%	61.6%	✓
ECBP-7.7	Increase the proportion of students who report receiving information on pregnancy prevention from their institution.	41.0%	45.1%	≥ 45.1%	48.5%	57.2%	21.4%	✓	44.8%	49.6%	26.6%	
ECBP-7.8	Increase the proportion of students who report receiving information on sexually transmitted disease/infection (STD/I) prevention from their institution.	52.2%	57.4%	≥ 57.4%	62.3%	69.7%	38.9%	✓	62.9%	66.0%	50.8%	✓
ECBP-7.9	Increase the proportion of students who report receiving information on nutrition from their institution.	52.4%	57.6%	≥ 57.6%	46.9%	52.6%	29.5%		51.4%	53.1%	44.6%	
ECBP-7.10	Increase the proportion of students who report receiving information on physical activity from their institution.	56.9%	62.6%	≥ 62.6%	61.0%	64.3%	50.5%		55.4%	56.4%	52.3%	

	Topic Area: Injury and Violence Prevention	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
HC IVP-a	Increase the proportion of students who report wearing a helmet always or most of the time when riding a bicycle within the last 12 months.	34.4%	37.8%	≥ 37.8%	19.4%	11.0%	50.9%		18.3%	14.1%	38.6%	
IVP-22	Increase the proportion of students who report wearing a helmet always or most of the time when riding a motorcycle within the last 12 months.	85.8%	94.4%	≥ 94.4%	56.4%	50.0%	81.1%		58.3%	58.0%	60.0%	
IVP-33	Reduce the proportion of students who report being physically assaulted within the last 12 months.	4.7% (ACHA-NCHA II), 4.0% (Core)	4.2% (ACHA-NCHA II), 3.5% (Core)	≤ 4.2%	2.3%	2.8%	1.0%	✓	3.4%	4.2%	0.6%	✓
IVP-39.3	Reduce the proportion of students who report being in an intimate relationship that was emotionally abusive within the last 12 months.	10.0%	9.0%	≤ 9.0%	7.3%	7.5%	6.8%	✓	8.3%	8.9%	6.3%	✓
IVP-39.1	Reduce the proportion of students who report being in an intimate relationship that was physically abusive within the last 12 months.	2.5%	2.3%	≤ 2.2%	1.9%	2.1%	1.4%	✓	2.3%	3.0%	0.0%	
IVP-39.2	Reduce the proportion of students who report being in an intimate relationship that was sexually abusive within the last 12 months.	1.6%	1.4%	≤ 1.4%	1.9%	2.3%	0.7%		2.5%	2.6%	2.3%	
HC IVP-b	Reduce the proportion of students who report being sexually touched without their consent within the last 12 months.	6.0% (ACHA-NCHA II), 3.9% (Core)	5.4% (ACHA-NCHA II), 3.5% (Core)	≤ 5.4%	8.4%	9.9%	4.1%		9.5%	10.7%	5.1%	
IVP-40	Reduce the proportion of students who report being sexually penetrated without their consent within the last 12 months.	1.5% (ACHA-NCHA II), 2.6% (Core)	1.4% (ACHA-NCHA II), 2.3% (Core)	≤ 1.4%	2.1%	2.8%	0.0%		2.0%	1.9%	2.3%	
HC IVP-c	Increase the proportion of students who report feeling very safe "on this campus" at night.	31.9%	35.1%	≥ 35.1%	30.1%	28.4%	35.5%		29.9%	28.3%	36.0%	
	Topic Area: Mental Health and Mental Disorders	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
MHMD-2	Reduce the proportion of students who report attempting suicide within the last 12 months.	1.3%	1.2%	≤ 1.2%	1.4%	1.5%	1.0%		1.9%	2.4%	0.0%	
MHMD-3	Reduce the proportion of students who report experiencing an eating disorder/problem within the last 12 months.	5.3%	4.8%	≤ 4.8%	4.1%	4.3%	3.4%	✓	8.2%	9.2%	4.5%	
MHMD-6a	Increase the proportion of students reporting a diagnosis of depression and receiving treatment within the last 12 months.	83.5%	91.9%	≥ 91.9%	74.8%	75.4%	73.9%		82.9%	79.7%	93.8%	
MHMD-6b	Increase the proportion of students reporting a diagnosis of anxiety and receiving treatment within the last 12 months.	78.9%	86.8%	≥ 86.8%	71.9%	71.2%	74.1%		74.9%	71.9%	84.8%	
	Topic Area: Nutrition and Weight Status	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
NWS-8	Increase the proportion of students who are at a healthy weight.	61.6%	67.8%	≥ 67.8%	62.3%	64.5%	55.6%		64.2%	66.0%	57.5%	
NWS-9	Reduce the proportion of students who are obese.	11.6%	10.4%	≤ 10.4%	12.9%	12.7%	13.3%		13.1%	11.8%	17.8%	
NWS-14/15	Increase the proportion of students who report eating five or more servings of fruits and vegetables per day.	6.0%	6.6%	≥ 6.6%	5.9%	5.1%	8.4%		4.9%	4.2%	8.0%	
	Topic Area: Physical Activity and Fitness	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
PA 2.1	Increase the proportion of students who report meeting current federal guidelines for aerobic physical activity.	48.7%	53.6%	≥ 53.6%	52.3%	55.4%	42.4%		49.5%	49.3%	50.0%	
PA-2.2	Increase the proportion of students who report meeting current federal guidelines for muscle-strengthening activity.	37.6%	41.4%	≥ 41.4%	43.1%	44.7%	38.4%	✓	39.2%	39.0%	39.9%	

	Topic Area: Sexually Transmitted Diseases and HIV	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
STD-1	Reduce the proportion of students who test positive for chlamydia as reported by their university health services in the last 12 months.	3.4%	3.1%	≤ 3.1%								
STD-4	Increase the proportion of university health services that report routinely screening sexually active women under the age of 26 for chlamydia.	91.8%	100.0%	100.0%								
HIV-17a	Increase the proportion of sexually active students who report using condoms, most of the time or always, for vaginal intercourse in the last 30 days.	51.0%	56.1%	≥ 56.1%	52.3%	56.3%	41.7%		49.1%	52.6%	37.7%	
HIV-17b	Increase the proportion of sexually active students who report using condoms, most of the time or always, for anal intercourse in the last 30 days.	28.2%	31.0%	≥ 31.0%	30.1%	32.7%	23.1%		29.2%	33.7%	17.9%	
HIV-14	Increase the proportion of students who report having ever been tested for HIV.	25.7%	28.3%	≥ 28.3%	26.7%	22.8%	38.9%		24.2%	20.1%	39.5%	
	Topic Area: Family Planning	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
FP-1	Decrease the proportion of female students who report an unintended pregnancy in the last 12 months.	1.5%	1.4%	≤ 1.4%	0.5%	0.4%	0.7%	✓	0.7%	0.9%	0.0%	✓
FP-3	Increase the proportion of college university health services that report offering (dispensing, prescribing, or selling) emergency contraception.	83.3%	91.6%	≥ 91.6%								
FP-6	Increase the proportion of students or their partner who report using contraception during the last vaginal sexual intercourse.	56.6%	62.3%	≥ 62.3%	85.7%	86.9%	82.7%	✓	85.7%	85.4%	84.6%	✓
	Topic Area: Substance Abuse	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
SA-13	Reduce the proportion of students who report using marijuana (pot, weed, hashish, hash oil) within the last 30 days.	17.0% (ACHA-NCHA II), 18.1% (Core)	15.3% (ACHA-NCHA II), 16.3% (Core)	≤ 15.3%	18.2%	20.4%	11.5%		24.2%	26.9%	14.1%	
SA-14	Reduce the proportion of students who report engaging in high-risk drinking of alcoholic beverages within the last two weeks.	35.1% (ACHA-NCHA II), 43.9 (Core)	31.6% (ACHA-NCHA II), 39.5% (Core)	≤ 31.6%	37.4%	42.2%	22.0%		38.3%	41.8%	25.4%	
SA-19	Reduce the proportion of students who report nonmedical use of prescription drugs within the last 12 months.	15.3%	13.8%	≤ 13.8%	12.9%	13.7%	10.3%	✓	11.7%	13.1%	6.8%	✓
HC SA-d	Reduce the proportion of students who report driving after consuming any alcohol within the last 30 days.	17.9%	16.1%	≤ 16.1%	15.1%	10.4%	30.2%	✓	12.5%	8.7%	26.7%	✓
	Topic Area: Tobacco Use	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
TU-1a	Reduce the proportion of students who report cigarette use within the last 30 days.	16.0%	14.4%	≤ 14.4%	7.6%	8.5%	4.8%	✓	5.8%	6.5%	3.4%	✓
TU-1b	Reduce the proportion of students who report smokeless tobacco use within the last 30 days.	3.9%	3.5%	≤ 3.5%	2.9%	3.5%	1.0%	✓	2.0%	2.0%	2.3%	✓
HC TU-e	Reduce the proportion of students who report hookah use within the last 30 days	8.2%	7.4%	≤ 7.4%	1.9%	2.1%	1.4%	✓	1.6%	1.7%	1.7%	✓
	Topic Area: Immunization and Infectious Disease	Baseline 2010	Target 2020	Target 2020	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL	ALL STUDENTS	UNDER-GRAD	GRAD/PROF	MET GOAL
IID-12	Increase the proportion of students who report receiving influenza vaccine in the last 12 months.	39.9%	43.9%	≥ 43.9%	44.5%	41.6%	53.6%	✓	52.4%	49.9%	61.0%	✓
IID-8a	Increase the proportion of students who report receiving hepatitis B vaccine.	88.6% (NIS-Teen); 73.0%	97.5% (NIS-Teen); 80.3%	≥ 80.3%	73.3%	72.7%	75.3%		76.6%	76.7%	76.0%	
IID-8b	Increase the proportion of students who report receiving human papillomavirus/HPV vaccine.	53.1% (NIS-Teen); 33.2%	58.4% (NIS-Teen); 36.5%	≥ 36.5%	58.6%	63.1%	44.7%	✓	65.1%	67.6%	55.2%	✓
IID-8c	Increase the proportion of students who report receiving measles, mumps, rubella vaccine.	88.6% (NIS-Teen); 70.9%	97.5% (NIS-Teen); 78.0%	≥ 78.0%	73.4%	71.0%	81.2%		82.6%	81.7%	85.9%	✓
IID-8d	Increase the proportion of students who report receiving meningococcal vaccine.	57.1% (NIS-Teen); 54.7%	62.8% (NIS-Teen); 60.2%	≥ 60.2%	67.1%	68.6%	62.9%	✓	74.0%	75.4%	68.8%	✓
IID-8e	Increase the proportion of students who report receiving varicella (chicken pox) vaccine.	79.1% (NIS-Teen); 43.4%	87.0% (NIS-Teen); 47.7%	≥ 47.7%	64.4%	67.6%	54.3%	✓	77.3%	78.8%	71.6%	✓

**Data Sources:**

American College Health Association. (2010). *American College Health Association-National College Health Assessment II: Reference Group Data Report Spring 2010*. Linthicum, MD: American College Health Association. Retrieved June 2012, from [http://www.acha-ncha.org/reports\\_ACHA-NCHAI.html](http://www.acha-ncha.org/reports_ACHA-NCHAI.html).

American College Health Association. (2011). *Pap Test and STI Survey for Calendar Year 2010*. Hanover, MD: American College Health Association. Retrieved June 2012, from [http://www.acha.org/Topics/pap\\_sti\\_survey.cfm](http://www.acha.org/Topics/pap_sti_survey.cfm).

Centers for Disease Control and Prevention (CDC). (2011). National and state vaccination coverage among adolescents aged 13 through 17 years—United States, 2010. *Morbidity & Mortality Weekly Report*, 60(33), 1117-1123. Retrieved June 2012, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6033a1.htm>.

Southern Illinois University Core Institute. (n.d.). *Core Alcohol and Drug Survey 2010 Annual Data*. Carbondale, IL: Core Institute. Retrieved June 2012, from <http://core.siu.edu/results.html>.

Southern Illinois University Core Institute. (1994). *Core Alcohol and Drug Survey Long Form* [Survey Instrument]. Carbondale, IL: Core Institute.

**Adapted from material in the public domain:**

U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (n.d.). Healthy People 2020 Program Planning Tools. Retrieved June 2012, from <http://www.healthypeople.gov>.



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**APPENDIX B:**  
**Selected Results of the**  
**2020 NCHA III Survey of MSU Students**

As was mentioned at the beginning of this report, the American College Health Association had greatly revised the questionnaire that was to be generally used nationwide beginning during the 2019-20 academic year. However, MSU staff elected to administer surveys using both NCHA II and NCHA III to separate random samples of MSU students during exactly the same time periods. The decision was made to strive for a total of 800 respondents to the NCHA II survey and 1,400 for the NCHA III survey. Most of this report has focused on the NCHA II results even though NCHA III includes questions on most of the same topics as had been included in NCHA II. However, modifications to many of the questions' wordings or the response options provided, or the time frames referenced for the questions, or programmed skip patterns built into NCHA III made the continuity of measurement for tracking trends from 2000 to 2020 and now forward highly questionable. A more detailed reporting of other NCHA III results and their comparability to NCHA II results is being provided for MSU staff. This Appendix will introduce some of the newer assessments contained in NCHA III.

As with NCHA II, on February 10, 2020, another stratified random sample of 7,000 MSU undergraduates and graduate/professional students was sent a pre-notification email informing them that they would be receiving an e-mail invitation from ACHA to participate in the National College Health Assessment. On February 12, the same sample was sent an e-mail invitation from ACHA containing a web-link to the NCHA III survey. This survey also began February 12 and concluded March 1. Email reminders were also sent to NCHA III non-responders on February 16, February 20, and February 25. Additional global messages encouraging participation were also sent on February 14 and February 26.

A total of 1,462 students responded, but several were excluded from analysis because of missing data, particularly on demographic items used for weighting. The final data file contained useable responses from 1,457 students. The overall response rate was 21%. A random sample of 1,457 respondents has an overall margin of sampling error of  $\pm 2.6\%$ .

The questionnaire covered several novel topics not included in NCHA II or covered similar topics in a novel way. These will be the focus of this appendix rather than repeating what has already been covered in this report.

As with the other survey already summarized, because some segments of the student body were somewhat over- or under-represented among respondents, the data set has been weighted based on gender, race/ethnicity, and academic class status so that the final weighted sample more nearly matches the proportions of these groups in the MSU student body as a whole.

A set of tables summarizing the results for nearly all items in the 2020 NCHA III survey has been developed and made available to appropriate MSU staff. This appendix contains nine of those tables. However, rather than being numbered 1 to 9 based on their sequence here, the table numbers shown are the same as their order in the summary document provided to staff.

## RESULTS: Belonging and University Community

NCHA III included opinion questions intended to assess the extent to which respondents feel that MSU is concerned about the student's health and well-being, the campus climate encourages discussion about students' health and well-being, members of the university community look out for each other, and that the respondent belongs there. Respondents were asked to indicate how strongly they agree or disagree with positive opinions regarding each of these four issues. The actual question wording and the percentage distributions of responses to these are shown in Table 3.

The table indicates that:

- 92.8% of students agree at least somewhat that they belong at MSU – 28.8% strongly agree
  - White domestic students were more likely to agree more strongly than were Other domestic or international students
  - Undergraduates tended to agree more strongly than graduate/professional students
  - Members of fraternities/sororities tended to agree more strongly than non-members
- 82.0% of students agree that their health and well-being is a priority at MSU
  - Males were somewhat more likely to agree than were females
  - International students were more likely to agree than were domestic students
  - Students living on campus were somewhat more likely to agree than were students living off campus
- 86.5% agree at least somewhat that the campus climate encourages a free and open discussion about student health and well-being
  - Males were somewhat more likely to agree than were females
  - International students were more likely to agree than were domestic students
- 80.1% of students agree at least somewhat that members of the MSU campus look out for each other
  - International students were more likely to agree than were domestic students
  - Members of fraternities/sororities tended to agree more strongly than non-members

The four items can be used to produce a composite scale. The reliability coefficient for such a scale (Cronbach's alpha) is 0.83. Combined so that scores on the scale can vary from 1-6, with 1 indicating strong disagreement with all four items and 6 indicating strong agreement with all four, the average scale score for this composite scale of a Healthy Community is 4.5 with a standard deviation of 0.88.

Overall, the average score among international students was higher than among domestic students but was lowest among Other domestic students. The average score among males was higher than that among females; it was higher among fraternity/sorority members than among non-members.

Table 3. Percentage Distribution of Sense of Belonging at MSU and the University Community, Overall, by Background Characteristics: 2020															
N3Q2- Please select your level of agreement with the following statements:			% Of Respondents												
			GENDER		RACE/ETHNICITY			ACADEMIC LEVEL		MEMBER OF FRAT./SOR.		RESIDENCE		OVERALL	
			Male	Female	White Domestic	Other Domestic	Internatl.	Undergrad	Grad/Prof	No	Yes	On Campus	Off Campus		
1. I feel I belong at my college/university.	Strongly Disagree	1.3%	1.6%	1.1%	1.0%	1.9%	1.9%	1.4%	1.0%	1.4%	0.7%	1.0%	1.5%		
	Disagree	1.6%	1.6%	1.6%	1.6%	1.9%	0.0%	1.8%	0.7%	1.7%	0.7%	2.6%	1.0%		
	Somewhat Disagree	4.4%	4.1%	4.6%	2.5%	10.8%	2.5%	4.6%	3.3%	4.6%	2.0%	4.6%	4.2%		
	Somewhat Agree	18.0%	16.9%	19.0%	14.8%	25.9%	20.8%	16.6%	23.2%	18.1%	17.7%	17.7%	18.2%		
	Agree	46.0%	45.8%	46.2%	47.8%	38.6%	50.9%	45.6%	47.7%	46.9%	37.4%	47.0%	45.6%		
	Strongly Agree	28.8%	30.0%	27.5%	32.2%	21.0%	23.9%	29.9%	24.2%	27.3%	41.5%	27.0%	29.6%		
2. I feel that students' health and well-being is priority at my college/university.	Strongly Disagree	2.9%	2.6%	3.2%	2.4%	5.2%	0.6%	3.3%	2.9%	3.2%	0.0%	2.2%	3.2%		
	Disagree	5.6%	7.2%	4.1%	6.1%	6.2%	1.3%	5.1%	5.6%	5.7%	4.1%	4.0%	6.4%		
	Somewhat Disagree	9.6%	6.3%	12.6%	9.2%	9.8%	10.8%	9.5%	9.5%	9.4%	11.0%	6.7%	11.1%		
	Somewhat Agree	35.9%	34.0%	37.6%	37.9%	36.9%	21.5%	36.6%	35.9%	35.9%	35.6%	38.3%	34.6%		
	Agree	33.9%	35.1%	32.8%	31.6%	34.2%	47.5%	33.1%	33.9%	33.9%	34.2%	36.0%	32.8%		
	Strongly Agree	12.2%	14.9%	9.8%	12.8%	7.7%	18.4%	12.4%	12.2%	11.9%	15.1%	12.8%	11.9%		
3. At my college/university, I feel that the campus climate encourages free and open discussion about student's health and well-being.	Strongly Disagree	1.7%	1.4%	2.0%	1.2%	3.4%	0.6%	1.9%	1.0%	1.9%	0.0%	0.8%	2.2%		
	Disagree	3.3%	2.3%	4.2%	3.5%	4.0%	0.6%	3.2%	3.6%	3.4%	2.7%	2.4%	3.8%		
	Somewhat Disagree	8.5%	7.0%	9.8%	7.6%	11.8%	7.5%	8.1%	9.9%	8.6%	8.2%	8.9%	8.3%		
	Somewhat Agree	31.5%	31.7%	31.3%	31.2%	34.5%	26.4%	31.5%	31.3%	32.0%	26.7%	31.0%	31.7%		
	Agree	41.3%	42.3%	40.5%	43.1%	35.4%	43.4%	41.4%	41.1%	41.2%	43.2%	44.2%	39.8%		
	Strongly Agree	13.7%	15.3%	12.1%	13.3%	10.9%	21.4%	13.9%	13.2%	13.0%	19.2%	12.6%	14.3%		
4. At my college/university, we are a campus where we look out for each other.	Strongly Disagree	2.8%	2.6%	2.9%	2.4%	5.3%	0.6%	3.1%	2.8%	3.1%	0.7%	2.4%	3.0%		
	Disagree	5.8%	6.3%	5.2%	5.9%	7.1%	1.9%	5.9%	5.8%	5.2%	11.0%	3.5%	7.0%		
	Somewhat Disagree	11.3%	11.2%	11.5%	11.8%	11.8%	8.2%	10.8%	11.3%	11.7%	7.5%	12.8%	10.5%		
	Somewhat Agree	34.4%	32.6%	36.1%	33.7%	37.2%	32.7%	34.4%	34.3%	34.9%	30.1%	36.7%	33.3%		
	Agree	35.1%	35.2%	35.2%	35.6%	30.0%	42.1%	34.4%	35.1%	35.4%	32.9%	35.0%	35.0%		
	Strongly Agree	10.6%	12.2%	9.2%	10.7%	8.7%	14.5%	11.5%	10.6%	9.8%	17.8%	9.6%	11.2%		
* $p(\chi^2) < .05$															



## RESULTS: Time Use in a Typical Week

Students split their time across a wide gamut of activities in any typical week. Some of these activities contribute to their academic success or their health and well-being, and some undermine these. NCHA III asked respondents to report the approximate number hours (in ranges) they spend in a typical week engaging in each of 18 different kinds of activities, from academic to religious to recreational to work to family.

Table 4 below shows the percentage of students who reported spending various numbers of hours in each of the 18 different kinds of activities. As one might expect (given these are students), large percentages of students report substantial numbers of hours attending classes, discussion sessions or labs, and studying outside of class, but how much time they typically spend in various other activities may be illuminating. For example:

- Only 17.3% of students report spending more than five hours a week partying, while 42.8% report spending no time partying in a typical week;
- More students report spending more time with family in a typical week than partying;
- Nearly half the students (46.5%) reported spending an hour or more per week performing community service or volunteer activities – 7.2% reported spending more than five hours per week;
- More than six out of ten students (62.0%) reported spending an hour or more per week participating in student clubs or organizations – 14.0% reported more than five hours per week;
- More than half the students (55.2%) reported spending six or more hours per week using social media, while only 4.2% report spending no time on this activity;
- More than half (55.3%) spend six or more hours per week working for pay – 29.2% spend 16 or more hours working for pay weekly;
- Only 19.2% reported spending no time weekly participating in exercise, team sports, or physically active hobbies, while 33.4% reported spending 6 or more hours per week (roughly an hour per day);
- 81.0% reported spending at least an hour per week attending cultural events, movies, concerts, sports, or other entertainment with others – 21.6% reported spending six or more hours;



Table 4. Percentage Distribution of Time Respondents Spend in Typical Week in Various Activities, by Background Characteristics: 2020

N3Q3. How many hours do you spend in a typical week (7 days) on the following activities?	Attending classes, discussion sections, labs	Studying, other academic activities outside class	Attending cultural events, movies, concerts, sports, other entertainment with others	Performing community service, volunteer activities	Participating in sports, rec. sports, physically active hobbies	Participating in spiritual, religious activities	Participating in student clubs, organizations	Socializing with friends	Partying	Spending time with family	Watching TV, streaming movies or other media for entertainment	Gaming	Using social media	Commuting to school or work	Working for pay	Participating in meditation or meditative activities	Performing unpaid household responsibilities	Taking care of children or other family members (unpaid)
0 hours	2.3%	0.2%	19.0%	53.5%	19.3%	68.8%	38.0%	2.4%	42.8%	38.9%	3.4%	58.5%	4.8%	18.8%	37.9%	72.0%	18.4%	89.4%
1-5 hours	6.7%	17.1%	59.3%	39.3%	47.2%	27.7%	48.0%	38.6%	39.9%	41.6%	37.2%	24.0%	40.0%	65.8%	6.9%	24.7%	61.6%	5.1%
6-10 hours	19.2%	29.1%	15.7%	4.3%	24.4%	1.9%	9.4%	32.0%	11.5%	9.8%	30.3%	8.5%	29.7%	11.8%	11.1%	1.9%	13.8%	1.7%
11-15 hours	29.6%	19.7%	4.1%	2.0%	6.4%	0.9%	2.3%	15.0%	3.9%	4.1%	17.8%	5.2%	13.3%	1.9%	14.9%	0.6%	3.4%	1.0%
16-20 hours	25.8%	12.6%	1.3%	0.5%	1.4%	0.2%	0.9%	5.8%	1.4%	1.4%	6.8%	2.1%	6.4%	0.7%	14.4%	0.4%	1.3%	0.5%
21-25 hours	8.5%	8.7%	0.3%	0.3%	0.9%	0.1%	0.8%	2.9%	0.2%	1.4%	1.9%	0.8%	2.7%	0.4%	5.8%	0.3%	0.7%	0.3%
26-30 hours	4.4%	4.8%	0.2%	0.1%	0.3%	0.3%	0.6%	1.2%	0.2%	0.6%	1.2%	0.5%	1.4%	0.2%	3.0%	0.1%	0.2%	0.3%
More than 30 hours	3.4%	7.8%	0.1%	0.0%	0.0%	0.1%	0.1%	2.1%	0.1%	2.3%	1.4%	0.6%	1.6%	0.5%	6.1%	0.0%	0.6%	1.7%



## RESULTS: Food Security/Insecurity

Awareness and concern about the numbers of individuals who do not have reliable, adequate food to meet their basic nutritional needs has been growing for the past decade. Even among college students, there has been evidence of increasing insecurity. NCHA III includes a battery of six questions developed through the U.S. Department of Agriculture that is designed to measure the respondent's degree of food security or insecurity. A composite score is calculated from responses to the six items and then, based on their scores, respondents are categorized into one of three categories: high or marginal food security, low food security, or very low food security.

Table 9 shows the individual questions included in this measure, their response options, the percentage of respondents to the 2020 NCHA III survey who have each response, and the percentage whose composite scores placed them in the three different food security categories.

The table indicates that four out of ten students (39.6%) reported at least sometimes running out of food with no money to get more for some period of time. One in twelve students (8.2%) reported this happens often. More than a third (36.9%) reported they cannot afford to eat a balanced diet at least sometimes including 10.0% who said this happens often. Another third (33.2%) reported that in the past month they had to cut the size of their meals or skip meals because there was not enough money for food, with about half of these respondents saying this happened more than just a couple of days in the month. One in five students (21.9%) said that they had eaten less than they thought they should in the past month because there was not enough money for food. And 16.4% reported that, in the past month, they at least sometimes were hungry but did not eat because there was not enough money for food.

Based on the students answers to these questions, 23.7% of MSU students completing the survey were categorized as having low food security and 15.2% more were categorized as having very low food security. That is, four out of ten students were classified as being food insecure.

The table shows the comparisons among students based on gender, race/ethnicity, academic status, residence, and membership in a Greek organization. The table indicates that undergraduates were more likely to be food insecure (i.e., low or very low food security) than graduate/professional students. Students living off campus were more likely than those living on campus to be food insecure. And, members of fraternities/sororities were more likely to be food insecure than non-members.

**Table 9. Percentage Distribution of Responses Regarding USDA Food Security Scale Items, Scale Score and Insecurity Assessment, Overall, by Background Characteristics: 2022**

FOOD SECURITY QUESTIONS (N3Q12A-N3Q12E)			% Of Respondents														
			GENDER		RACE/ETHNICITY			ACADEMIC LEVEL			MEMBER OF FRAT./SOR.		RESIDENCE				
			Male	Female	White Domestic	Other Domestic	Internatl.	Undergrad	Grad/prof	No	Yes	On Campus	Off Campus				
1. The food that I bought just didn't last, and I didn't have money to get more.	Never True	60.4%	61.9%	59.0%	61.1%	57.0%	63.5%	56.9%	73.5%	*	61.7%	49.0%	*	61.9%	59.6%		
	Sometimes True	31.4%	29.9%	32.7%	29.9%	36.4%	30.2%	33.7%	22.9%		30.5%	38.8%		28.5%	32.8%		
	Often True	8.2%	8.2%	8.2%	9.0%	6.5%	6.3%	9.4%	3.6%		7.8%	12.2%		9.5%	7.6%		
2. I could afford to eat balanced meals.	Never True	63.1%	62.8%	63.2%	63.5%	61.5%	64.2%	59.9%	75.2%	*	63.6%	58.5%		66.1%	61.5%		
	Sometimes True	26.9%	26.4%	27.4%	26.0%	27.0%	32.1%	28.4%	21.1%		26.7%	28.6%		24.1%	28.3%		
	Often True	10.0%	10.8%	9.3%	10.6%	11.5%	3.8%	11.7%	3.6%		9.7%	12.9%		9.7%	10.2%		
3. In the last 30 days, did you ever cut the size of your meals or skip meals because there wasn't enough money for food?	No	66.8%	64.9%	68.7%	*	67.7%	65.5%	63.1%	63.6%	78.4%	*	68.2%	54.4%	*	75.8%	62.2%	*
	Yes, only 1 or 2 days	16.2%	18.6%	14.0%		16.1%	15.4%	18.1%	17.1%	12.7%		15.8%	19.0%		10.1%	19.3%	
	Yes, some, not every day	13.4%	12.3%	14.3%		12.8%	13.2%	16.9%	14.9%	7.5%		12.4%	22.4%		10.7%	14.7%	
	Yes, almost every day	3.7%	4.3%	3.0%		3.3%	5.8%	1.9%	4.3%	1.3%		3.6%	4.1%		3.4%	3.8%	
4. In the last 30 days, did you ever eat less than you felt you should because there wasn't enough money for food?	No	78.1%	77.3%	78.8%		79.6%	75.1%	74.8%	76.4%	84.6%	*	79.2%	68.2%	*	83.9%	75.2%	*
	Yes	21.9%	22.7%	21.2%		20.4%	24.9%	25.2%	23.6%	15.4%		20.8%	31.8%		16.1%	24.8%	
5. In the last 30 days, were you ever hungry but didn't eat because there wasn't enough money for food?	No	83.6%	83.0%	84.1%		83.5%	83.7%	83.9%	81.7%	90.8%	*	84.8%	74.3%	*	86.5%	82.2%	*
	Yes	16.4%	17.0%	15.9%		16.5%	16.3%	16.1%	18.3%	9.2%		15.2%	25.7%		13.5%	17.8%	
Total Food Security Score	Very low food security	15.2%	15.7%	14.7%	15.0%	15.5%	15.8%	16.9%	8.6%	*	14.3%	22.4%	*	11.6%	17.1%	*	
	Low food security	23.7%	22.9%	24.5%	21.9%	28.6%	25.3%	25.8%	15.8%		23.2%	28.6%		21.7%	24.8%		
	High or marginal food security	61.1%	61.4%	60.8%	63.1%	55.9%	58.9%	57.3%	75.6%		62.5%	49.0%		66.7%	58.2%		
* p(x2) < .05																	

\*  $p(\chi^2) < .05$

## RESULTS: Well-Being

Although both NCHA I and NCHA II had included questions to assess mental health and experiences of trauma, NCHA III focused more attention on issues surrounding the emotional and mental health of students and their ability to cope with difficulties. One eight-item battery of questions focuses on the respondent's sense of well-being, including having a purposeful life, supportive relationships, positive self-image, and hopefulness regarding the future. Respondents were asked to indicate how strongly they agree or disagree with each positive statement. Each respondent's answers to the eight items were then used to calculate a composite score on the Diener Psychological Well-Being Scale. Scores on the scale can vary from a low of 8 (= Low Psychological Well-Being) to a high of 56 (= High Psychological Well-Being).

Appendix Table 22 shows the results for this battery of questions and scores on the Diener Psychological Well-Being Scale. For simplifying the summary of results, the three categories of agreement (i.e., strongly agree, agree, and slightly agree) and the three categories of disagreement (i.e., strongly disagree, disagree, and slightly disagree) have been collapsed into one category each (i.e., agree and disagree).

Table 22 indicates that more than eight out of ten respondents agreed with each of the eight items, but that there were significant differences between males and females on two of the items and significant differences on four of the eight items between members of fraternities/sororities and non-members. Members of such Greek organizations were more likely than their non-member counterparts to agree with these positive statements regarding themselves and their relationships.

The table also indicates there were no significant differences in the mean scores on the Diener Psychological Well-Being Scale based on sex, race/ethnicity, or age group, but that the mean score of fraternity/sorority members was significantly higher than that of non-members.

Table 22. Percentage Distribution of Responses on Diener Well-Being Scale Items and Scale Mean, Overall, by Background: 2020

PERCENTAGE OF RESPONDENTS																
Meaningful Life Scale Items (N3Q41A-H)		Overall %	SEX			CLASS					AGE GROUP			MEMBER OF FRAT./SOR.		
			Males	Females		Fresh.	Soph.	Jr.	Sr.	Grad/Prof	18-20 yrs	21+ yrs		Yes	No	
I lead a purposeful and meaningful life																
Agree	86.6%	84.7%	88.3%	NS	82.1%	84.3%	87.1%	87.9%	89.8%	NS	84.3%	88.4%	NS	92.5%	86.0%	*
Neither agree or disagree	6.2%	7.7%	4.9%		8.7%	6.5%	7.0%	5.5%	4.6%		7.3%	5.4%		5.4%	6.2%	
Disagree	7.2%	7.6%	6.8%		9.2%	9.2%	6.0%	6.6%	5.6%		8.4%	6.2%		2.0%	7.8%	
My social relationships are supprtive																
Agree	88.6%	85.2%	91.8%	*	85.3%	88.4%	87.7%	90.1%	89.5%	NS	88.7%	88.7%	NS	95.3%	88.0%	*
Neither agree or disagree	5.4%	8.2%	2.8%		8.7%	4.6%	7.6%	2.7%	4.9%		6.0%	4.8%		0.7%	5.9%	
Disagree	6.0%	6.6%	5.4%		6.0%	6.9%	4.6%	7.1%	5.6%		5.4%	6.4%		4.1%	6.1%	
I am engaged and interested																
Agree	84.4%	83.5%	85.2%	NS	84.4%	80.5%	83.1%	85.2%	87.8%	NS	84.1%	84.5%	NS	90.5%	83.8%	NS
Neither agree or disagree	6.0%	6.0%	6.0%		9.2%	5.7%	6.3%	4.9%	5.0%		5.9%	6.1%		3.4%	6.2%	
Disagree	9.7%	10.6%	8.9%		6.4%	13.8%	10.6%	9.9%	7.3%		9.9%	9.5%		6.1%	10.0%	
I actively contribute to the happiness																
Agree	89.6%	86.4%	92.6%	*	88.5%	87.7%	89.7%	90.4%	90.8%	NS	88.9%	90.3%	NS	95.2%	89.1%	NS
Neither agree or disagree	5.8%	7.3%	4.4%		6.4%	7.7%	7.0%	4.1%	4.6%		6.4%	5.3%		2.0%	6.1%	
Disagree	4.6%	6.3%	3.0%		5.0%	4.6%	3.3%	5.5%	4.6%		4.7%	4.4%		2.7%	4.8%	
I am competent and capable in the activities																
Agree	91.3%	91.1%	91.5%	NS	90.8%	90.8%	92.4%	90.4%	92.4%	NS	91.2%	91.5%	NS	94.6%	91.0%	NS
Neither agree or disagree	4.9%	4.9%	4.9%		5.5%	5.4%	6.6%	4.1%	3.3%		5.6%	4.2%		3.4%	5.0%	
Disagree	3.8%	4.0%	3.6%		3.7%	3.8%	1.0%	5.5%	4.3%		3.2%	4.3%		2.0%	4.1%	
I am a good person and live a good life																
Agree	89.9%	88.6%	91.2%	NS	86.2%	90.8%	91.0%	89.9%	91.1%	NS	89.6%	90.3%	NS	96.6%	89.3%	*
Neither agree or disagree	5.9%	6.4%	5.3%		9.2%	3.8%	6.3%	6.0%	4.6%		5.6%	5.9%		2.7%	6.1%	
Disagree	4.2%	5.0%	3.4%		4.6%	5.4%	2.7%	4.1%	4.3%		4.7%	3.8%		0.7%	4.6%	
I am optimistic about my future																
Agree	88.0%	88.0%	88.0%	NS	83.0%	88.0%	89.1%	89.6%	88.5%	NS	86.5%	89.3%	NS	95.9%	87.1%	*
Neither agree or disagree	4.9%	4.3%	5.6%		6.4%	5.0%	4.6%	4.4%	4.9%		5.2%	4.8%		1.4%	5.4%	
Disagree	7.0%	7.7%	6.4%		10.6%	7.0%	6.3%	6.0%	6.6%		8.3%	5.9%		2.7%	7.5%	
People respect me																
Agree	87.1%	86.3%	87.8%	NS	82.6%	86.5%	88.7%	87.1%	89.1%	NS	87.2%	87.0%	NS	93.2%	86.4%	NS
Neither agree or disagree	7.7%	7.8%	7.6%		11.0%	6.2%	8.6%	6.6%	6.9%		7.3%	8.1%		4.1%	8.1%	
Disagree	5.2%	5.8%	4.6%		6.4%	7.3%	2.6%	6.3%	3.9%		5.5%	4.9%		2.7%	5.4%	
Diener Psychological Well-Being Scale (8=Low; 56=High)																
Mean	46.30	46.05	46.53	NS	45.17	45.90	47.00	46.12	46.96	NS	46.20	46.39	NS	48.45	46.08	**
Std. Dev.	8.26	8.86	7.65		8.37	8.16	7.69	8.96	7.85		8.20	8.32		6.29	8.41	
** = p(Chi-square<.05; NS=Not Significant. ** =p(F)<.05; NS=Not Significant																

\* = p(Chi-square&lt;.05; NS=Not Significant. \*\* =p(F)&lt;.05; NS=Not Significant

## RESULTS: Resilience

Another battery added to NCHA III assesses the respondents' subjective assessments regarding their ability to adapt to change and to bounce back from health setbacks. There are two items in the battery. Each of these positively worded items has five response options with which to indicate how much of the time the item characterizes the respondent's ability to adapt or bounce back. Respondents' answers are then combined to form a composite score on the Connor-Davison Resilience Scale, which can vary from 0 (= Low Resilience) to 8 (= High Resilience).

Appendix Table 23 shows the percentage distribution of responses to each of the two items of the scale and the mean score on the Resilience Scale. The table indicates that roughly eight out of ten respondents to each of the two items reported the statement was true of themselves often or nearly always. On both items, males were somewhat more likely than females to claim the statements were true of themselves this much of the time. There were no significant differences on these items based on age group or membership in fraternities/sororities, but undergraduate junior and graduate/professional students tended to report that being adaptable to change was more often true of themselves than did other students.

The table reports that the overall mean score was 6.2 on the 0-8 on the Resilience Scale – toward the high resilience end of the scale. Reflecting the responses on the individual items comprising the scale, there were no significant differences in the scale scores between 18-20 year-olds and 21 or older students, between Greek organization members and non-members. There were statistically significant differences between males and females, and across academic classes. Males tended to have higher (more resilient) scores than females; juniors and graduate/professional students tended to have higher scores than their counterparts.

**Table 23. Percentage Distribution of Response on C-D Resilience Scale Items and Means, Overall, by Background: 2020**

PERCENTAGE OF RESPONDENTS																
		SEX			CLASS					AGE GROUP			Member of Frat./Sor.			
		Males	Females		Fresh.	Soph.	Jr.	Sr.	Grad/Prof	18-20 yrs	21+ yrs	Yes	No			
Resilience Scale Items (N3Q42A-B)	Overall %															
I am able to adapt when changes occur																
Not at all true	1.0%	1.4%	0.5%	*	1.4%	0.4%	0.3%	2.2%	0.3%	*	.9%	1.1%	NS	.7%	1.0%	NS
Rarely true	1.8%	1.7%	1.9%		1.8%	2.3%	0.7%	1.9%	2.3%		1.4%	1.9%		1.4%	1.8%	
Sometimes true	16.9%	13.4%	20.2%		15.7%	22.6%	15.9%	17.0%	14.1%		18.3%	15.7%		12.2%	17.5%	
Often true	49.5%	49.4%	49.6%		57.6%	46.0%	45.4%	50.0%	51.0%		50.3%	48.9%		55.8%	48.8%	
True nearly all the time	30.8%	34.1%	27.9%		23.5%	28.7%	37.7%	28.8%	32.2%		29.1%	32.4%		29.9%	30.9%	
I tend to bounce back after illness, injury,																
Not at all true	1.0%	1.4%	0.7%	*	.9%	0.8%	0.3%	1.9%	1.0%	NS	.8%	1.3%	NS	0.0%	1.1%	NS
Rarely true	2.4%	1.3%	3.5%		3.2%	4.2%	1.3%	0.5%	3.3%		2.8%	2.0%		1.4%	2.5%	
Sometimes true	15.8%	13.9%	17.7%		15.6%	18.5%	15.1%	16.5%	13.8%		16.5%	15.3%		14.3%	16.0%	
Often true	44.8%	42.1%	47.3%		45.4%	42.9%	41.8%	48.4%	44.7%		43.5%	45.8%		44.9%	44.7%	
True nearly all the time	36.0%	41.3%	30.9%		34.9%	33.6%	41.4%	32.7%	37.2%		36.4%	35.6%		39.5%	35.6%	
Connor-Davison Resilience Scale (0=Low, 8=High)																
Mean	6.20	6.34	6.07	**	6.10	6.05	6.43	6.12	6.26	**	6.18	6.22	NS	6.35	6.18	NS
Std. Dev.	1.48	1.51	1.45		1.41	1.54	1.40	1.57	1.43		1.45	1.50		1.33	1.50	
*= p(Chi-square<.05; NS=Not Significant. ** =p(F)<.05; NS=Not Significant																

\* = p(Chi-square&lt;.05; NS=Not Significant. \*\* =p(F)&lt;.05; NS=Not Significant



## RESULTS: Anxiety

NCHA III included a six-item set of questions designed to measure anxiety. The six items include a list of behaviors (e.g., fidgeting) or feelings (e.g., nervous, hopeless, etc.) for which respondents were asked to indicate how often they experienced this in the past month. Appendix Table 24 show the list of items and the percentage of respondents who reported having these behaviors or feelings. Respondents were given five ordered response options for each item from “all of the time” to “none of the time.” The table indicates that feeling worthless, sad, and hopeless all the time were experienced by the largest percentages of respondents.

Responses to the six items are combined to form the Kessler 6 Screening Scale which can vary from a low of 0 to a high of 24. Ranges of scores are categorized to represent the degree of anxiety respondents have been experiencing for the previous month. Scores of 0-8 represent “no or low distress,” 9-12 represent “moderate distress,” 13-24 represent “severe distress.” The table also shows the mean screening score on the scale and percentages of respondents that fall into each of the three distress categories.

The mean Screening Scale Score overall was 7.4, indicating that, on average, students were in the “no to low distress” category and none of the subgroups displayed has an average score in the “moderate” or “severe distress” range (although the mean for Sophomore comes close). Nonetheless, the table indicates that the mean Screening Scale score differed across categories of all four background variables (i.e., sex, academic class, age group, and membership in fraternities/sororities).

Similarly, the table reports the percentage of respondents whose scores placed them in the various distress categories of the scale. Table 24 shows that, overall, more than a third of respondents were in the moderate or severe distress categories, with 15% in the severe distress category. There were significant differences by sex, academic class, and age group with females more likely to report experiencing more distress than males, younger respondents experiencing more distress than older, and Freshmen and Sophomores experiencing more distress than upper classmen and graduate/professional students.

Table 24. Percentage Distribution of Responses to Anxiety Scale Items, Scale Mean, Overall, by Group: 2020

Anxiety Scale Items (N3Q44A-F)		PERCENTAGE OF RESPONDENTS													
		SEX		CLASS					AGE GROUP		MEMBER OF FRAT./SOR.				
		Overall %	Males	Females	Fresh.	Soph.	Jr.	Sr.	Grad/Prof	18-20 yrs	21+ yrs	Yes	No		
During the past 30 days, about how often did you feel . . .															
Nervous?															
	All of the time	7.7%	10.0%	5.6% *	7.4%	8.4%	9.2%	5.0%	9.2% *	8.1%	7.5%	NS	10.2%	7.3%	NS
	Most of the time	28.9%	32.7%	25.5%	30.1%	23.7%	28.9%	31.7%	29.3%	27.8%	29.8%		34.7%	28.3%	
	Some of the time	40.8%	41.0%	40.6%	38.0%	35.9%	43.4%	41.3%	43.1%	38.5%	42.7%		39.5%	40.9%	
	A little of the time	15.2%	11.3%	18.8%	18.1%	21.8%	12.5%	12.7%	13.5%	17.6%	13.1%		10.9%	15.7%	
	None of the time	7.4%	5.0%	9.5%	6.5%	10.3%	5.9%	9.4%	4.9%	8.0%	6.8%		4.8%	7.8%	
Hopeless?															
	All of the time	40.2%	41.5%	38.9% NS	35.0%	35.4%	44.2%	38.8%	45.7% *	37.5%	42.8%	NS	45.3%	39.6% *	
	Most of the time	29.1%	30.5%	27.7%	28.5%	29.2%	28.4%	32.4%	25.8%	28.9%	29.3%		34.5%	28.5%	
	Some of the time	23.0%	20.5%	25.3%	27.6%	23.8%	19.1%	22.7%	23.2%	24.3%	21.4%		13.5%	24.0%	
	A little of the time	4.8%	4.2%	5.5%	6.5%	5.8%	5.9%	3.0%	3.6%	5.7%	4.1%		6.1%	4.6%	
	None of the time	3.0%	3.3%	2.7%	2.3%	5.8%	2.3%	3.0%	1.7%	3.7%	2.4%		.7%	3.2%	
Restless or fidgety?															
	All of the time	19.0%	20.0%	18.1% *	21.4%	19.5%	19.6%	14.2%	21.9% *	20.1%	18.1%	NS	21.8%	18.6%	NS
	Most of the time	29.9%	31.8%	28.1%	25.1%	23.4%	30.2%	35.7%	32.1%	26.5%	32.9%		31.3%	29.8%	
	Some of the time	33.8%	34.0%	33.7%	33.5%	35.6%	32.9%	35.1%	32.5%	34.2%	33.5%		34.7%	33.7%	
	A little of the time	11.8%	9.5%	13.8%	14.4%	13.8%	12.3%	8.4%	10.3%	13.3%	10.4%		9.5%	12.0%	
	None of the time	5.5%	4.7%	6.3%	5.6%	7.7%	5.0%	6.7%	3.3%	6.0%	5.1%		2.7%	5.9%	
So sad nothing could cheer you up?															
	All of the time	46.9%	48.9%	45.0% NS	38.4%	44.7%	46.9%	46.0%	55.4% *	43.7%	49.7%	NS	59.5%	45.5%	*
	Most of the time	28.3%	29.5%	27.2%	31.9%	26.7%	26.7%	32.8%	23.4%	28.9%	27.7%		21.6%	29.1%	
	Some of the time	18.0%	14.9%	20.8%	21.3%	19.1%	21.5%	14.3%	15.5%	19.4%	16.8%		12.2%	18.6%	
	A little of the time	4.3%	4.3%	4.4%	6.5%	6.9%	2.6%	2.8%	4.3%	5.5%	3.2%		6.1%	4.0%	
	None of the time	2.5%	2.4%	2.7%	1.9%	2.7%	2.3%	4.1%	1.3%	2.4%	2.5%		.7%	2.8%	
That everything was an effort?															
	All of the time	29.7%	32.2%	27.3% NS	30.6%	25.7%	34.4%	29.1%	29.0% NS	30.1%	29.4%	NS	40.8%	28.4%	*
	Most of the time	30.1%	30.0%	30.3%	26.9%	29.9%	30.5%	30.2%	32.0%	29.7%	30.7%		27.9%	30.5%	
	Some of the time	24.4%	24.2%	24.6%	25.5%	25.3%	20.9%	26.0%	24.8%	22.9%	25.6%		17.0%	25.2%	
	A little of the time	10.8%	9.4%	12.1%	14.8%	11.1%	9.9%	8.9%	10.9%	12.5%	9.3%		12.9%	10.5%	
	None of the time	5.0%	4.1%	5.7%	2.3%	8.0%	4.3%	5.8%	3.3%	4.7%	5.1%		1.4%	5.4%	
Worthless?															
	All of the time	57.2%	57.6%	56.8% NS	48.6%	56.1%	56.0%	60.7%	62.0% NS	54.1%	60.3%	NS	68.2%	56.1%	NS
	Most of the time	22.4%	22.8%	22.0%	28.0%	20.2%	23.2%	22.7%	19.5%	23.7%	21.3%		17.6%	22.9%	
	Some of the time	12.2%	11.7%	12.6%	15.0%	13.0%	11.6%	9.7%	12.9%	12.8%	11.5%		7.4%	12.7%	
	A little of the time	5.3%	4.7%	5.8%	5.1%	7.3%	6.6%	3.3%	4.0%	6.1%	4.3%		4.7%	5.3%	
	None of the time	2.9%	3.2%	2.7%	3.3%	3.4%	2.6%	3.6%	1.7%	3.2%	2.7%		2.0%	3.0%	
Kessler 6 Screening Scale (0-24)															
	Mean	7.35	6.91	7.77 **	7.78	8.11	7.06	7.31	6.71 **	7.66	7.06	**	6.11	7.49	**
	No or Low Distress (0-8)	64.5%	68.3%	60.9% *	56.5%	58.2%	67.8%	66.9%	69.1% *	60.9%	67.7%	*	72.8%	63.6%	NS
	Moderate Distress (9-12)	20.2%	18.5%	21.7%	26.2%	20.7%	18.6%	18.3%	18.9%	21.9%	18.7%		17.7%	20.3%	
	Serious Distress (13-24)	15.4%	13.3%	17.3%	17.3%	21.1%	13.6%	14.9%	12.0%	17.2%	13.6%		9.5%	16.1%	
* = p(Chi-square<.05; NS=Not Significant. ** =p(F)<.05; NS=Not Significant															

\* = p(Chi-square&lt;.05); NS=Not Significant. \*\* = p(F)&lt;.05; NS=Not Significant

## RESULTS: Loneliness

Another psychological scale, the UCLA Loneliness Scale, added to NCHA III focused on how often the respondent felt left out, lacking in companionship, or isolated from others. There were three possible answers (hardly ever, some of the time, or often) for each of the three questions. A composite score based on the responses to the three items could vary from a low of 3 to a high of 9. Scores from 3-5 represent little loneliness, 6-9 represent some or considerable loneliness.

Appendix Table 25 shows the distribution of responses to each of the three items comprising the scale, the mean score on the scale, the percentage distribution of respondents across the two categories of the loneliness scale, and the breakdowns of each of these across the demographic backgrounds of respondents. The table shows that between one in six and one in eight respondents reported often feeling they lacked companionship, left out, or isolated from others.

While there were no significant differences between males and females on any of the items or the scale scores, there were differences on all the items and the scale scores across academic classes and age groups. In general, academically younger and chronologically younger respondents reported more often feeling lonely than did their older counterparts.

Similarly, members of Greek organizations tended to report less often feeling lonely than their non-member counterparts.

Inclusion of this scale provides an opportunity to assess the correlation between loneliness and other psychological measures, as well as drug or alcohol use, time use of social media or other activities, and other behaviors such as self-harm – the next module added or modified in NCHA III to be discussed.

Table 25. Percentage Distribution of Responses to Loneliness Scale Items, UCLA Loneliness Scale Mean, Overall, by Group: 2020																
PERCENTAGE OF RESPONDENTS																
Scale Items (N3Q45A-C)	Overall %	SEX			CLASS					AGE GROUP		MEMBER OF FRAT./SOR.				
		Males	Females		Fresh.	Soph.	Jr.	Sr.	Grad/Prof	18-20 yrs	21+ yrs	Yes	No			
Loneliness Scale Items																
How often do you feel that you lack companionship?																
Hardly ever	39.5%	37.3%	41.5%	NS	33.5%	29.8%	42.1%	42.3%	46.9%	*	34.5%	43.9%	*	48.0%	38.6%	NS
Some of the time	45.2%	46.0%	44.6%		44.5%	53.4%	46.0%	42.3%	41.6%		47.7%	43.0%		39.9%	45.8%	
Often	15.3%	16.7%	13.9%		22.0%	16.8%	11.9%	15.4%	11.6%		17.8%	13.1%		12.2%	15.6%	
How often do you feel left out?																
Hardly ever	39.8%	41.0%	38.7%	NS	32.1%	38.2%	41.4%	40.3%	44.9%	*	38.4%	41.2%	*	45.0%	39.2%	NS
Some of the time	46.8%	44.3%	49.1%		50.0%	45.0%	44.4%	48.8%	45.2%		45.4%	47.9%		43.0%	47.4%	
Often	13.4%	14.7%	12.2%		17.9%	16.8%	14.2%	11.0%	9.9%		16.3%	10.9%		12.1%	13.5%	
How often do you feel isolated from others?																
Hardly ever	42.2%	42.1%	42.2%	NS	37.8%	37.8%	45.9%	43.3%	44.2%	*	40.0%	44.3%	*	57.7%	40.4%	*
Some of the time	41.1%	40.1%	41.9%		40.1%	42.0%	36.0%	44.7%	41.6%		40.2%	41.7%		30.2%	42.4%	
Often	16.7%	17.7%	15.9%		22.1%	20.2%	18.2%	12.1%	14.2%		19.8%	14.0%		12.1%	17.2%	
UCLA Loneliness Scale Score (3-9)																
Mean	5.24	5.29	5.20	NS	5.59	5.48	5.15	5.13	4.99	**	5.41	5.09	**	4.85	5.28	**
Negative for Loneliness (3-5)	53.6%	52.1%	55.0%	NS	45.6%	47.3%	56.3%	54.8%	61.4%	*	50.1%	56.9%	*	62.8%	52.6%	*
Positive for Loneliness (6-9)	46.4%	47.9%	45.0%		54.4%	52.7%	43.7%	45.2%	38.6%		49.9%	43.1%		37.2%	47.4%	
* = p(Chi-square<.05; NS=Not Significant. ** =p(F)<.05; NS=Not Significant																

## RESULTS: Suicide Risk Assessment

Previous versions of the NCHA questionnaire included several questions about intentionally harming one's self, thinking about suicide, or attempting suicide. To improve the rigor of the measures regarding suicide risk, NCHA III included a different multi-item battery that combines frequency of types of thoughts and related behaviors. Appendix Table 29 lists the five questions comprising the assessment and the response options that were provided for each. It also shows the calculated mean risk assessment score and the categories of suicidal risk based on the scoring. It also shows another item in the questionnaire regarding the number of times the respondent had attempted to harm himself or herself in the past twelve months.

Table 29 shows that:

- More than a third of respondents indicated they had at least thought about committing suicide in the past year; 1.8% reported attempting suicide and another 13.1% reported planning to harm themselves;
- 16% reported sometimes or often thinking about killing themselves and telling someone else that they might do so;
- 2% reported it was likely that they would attempt suicide someday and 3.4% reported having attempted suicide in the past twelve months.

The table indicates that the screening assessment categorized 79.1% of respondents as being negative for suicidal risk while 20.9% are positive (i.e., elevated likelihood of attempting). It also indicates there were no significant differences in the percentages of respondents with a positive suicidal screening based on sex, race/ethnicity, academic level, or residency location. However, it does indicate that a positive suicidal screening is less likely among members of fraternities/sororities than among non-member students.

The table also shows the results for a separate question regarding the frequency of intentionally harming one's self (e.g., cutting, burning, bruising, or otherwise injuring). The Gamma correlation between Suicidal Screening Assessment and attempted self-harm is 0.85. The table indicates that females were more likely than males to harm themselves, undergraduates were more likely than graduate/professional students, and students living on campus were somewhat more likely than those living off campus.

**Table 29. Percentage Distribution of Responses Regarding Suicide Ideation, Risk Screening Assessment, Other Self-Harm, Overall, by Background Characteristics: 2020**

SUICIDAL IDEATION (N3Q49-N3Q53)			% Of Respondents														
			GENDER		RACE/ETHNICITY			ACADEMIC LEVEL		MEMBER OF FRAT./SOR.		RESIDENCE					
			Male	Female	White Domestic	Other Domestic	Internatl.	Undergrad	Grad/prof	No	Yes	On Campus	Off Campus				
1. Have you ever thought about or attempted to kill yourself?	Never	63.4%	64.6%	62.3%	63.7%	61.6%	65.2%	63.8%	62.3%	63.3%	65.1%	60.0%	65.1%				
	Thought	21.6%	21.1%	22.2%	21.8%	22.2%	19.4%	20.6%	25.7%	21.4%	23.3%	24.5%	20.3%				
	Plan	13.1%	12.5%	13.6%	13.1%	12.8%	14.2%	13.8%	10.7%	13.4%	11.0%	14.3%	12.5%				
	Attempt	1.8%	1.7%	1.9%	1.4%	3.4%	1.3%	1.9%	1.3%	2.0%	0.7%	1.2%	2.1%				
2. How often have you thought about killing yourself in the past year?	Never	73.8%	75.3%	72.2%	74.1%	73.2%	73.1%	72.6%	78.4%	73.0%	81.1%	*	72.0%	74.7%			
	Rarely	10.7%	9.7%	11.8%	11.5%	8.6%	10.6%	11.5%	7.9%	11.0%	8.1%		11.7%	10.3%			
	Sometimes	7.5%	7.3%	7.7%	7.6%	7.7%	6.3%	7.9%	5.9%	7.4%	8.8%		7.3%	7.6%			
	Often	8.0%	7.7%	8.3%	6.8%	10.5%	10.0%	8.1%	7.9%	8.6%	2.0%		9.1%	7.4%			
3. Have you ever told someone that you were going to commit suicide, or might do it?	No	84.3%	87.4%	81.5%	*	84.8%	81.5%	87.5%	83.7%	86.9%	84.2%	85.8%	83.7%	84.7%			
	Yes	15.7%	12.6%	18.5%		15.2%	18.5%	12.5%	16.3%	13.1%	15.8%	14.2%	16.3%	15.3%			
4. How likely is it that you will attempt suicide someday?	Never	83.5%	84.0%	82.9%		84.4%	81.5%	82.3%	83.6%	83.0%	82.6%	92.6%	*	81.9%	84.2%		
	Unlikely	14.5%	14.3%	14.9%		13.6%	17.6%	13.9%	14.3%	15.4%	15.2%	7.4%		15.3%	14.2%		
	Likely	2.0%	1.7%	2.3%		2.0%	0.9%	3.8%	2.1%	1.6%	2.2%	0.0%		2.8%	1.6%		
5. Within the <u>last 12 months</u> , have you attempted suicide?	No	96.6%	95.4%	97.7%	*	96.8%	96.3%	96.2%	96.0%	99.0%	*	96.5%	98.6%	95.1%	97.4%	*	
	Yes	3.4%	4.6%	2.3%		3.2%	3.7%	3.8%	4.0%	1.0%		3.5%	1.4%	4.9%	2.6%		
RSBQR: Suicide Ideation Scale	Negative suicidal screening	79.1%	78.8%	79.4%		79.7%	77.8%	78.5%	78.3%	82.2%		78.4%	86.5%	*	77.8%	79.7%	
	Positive suicidal screening	20.9%	21.2%	20.6%		20.3%	22.2%	21.5%	21.7%	17.8%		21.6%	13.5%		22.2%	20.3%	
6. Within the <u>last 12 months</u> , how often have you <u>intentionally</u> cut, burned, bruised, or otherwise injured yourself?	Never	93.0%	95.7%	90.4%	*	93.4%	93.2%	89.4%	91.8%	97.1%	*	93.0%	91.9%		91.5%	93.6%	*
	Once or twice	5.3%	3.3%	7.1%		5.1%	4.7%	8.1%	6.0%	2.6%		5.2%	6.1%		5.3%	5.3%	
	Monthly	1.6%	1.0%	2.3%		1.3%	2.2%	2.5%	2.0%	0.3%		1.6%	2.0%		3.0%	0.9%	
	Weekly																
	Daily or almost daily	0.1%	0.0%	0.3%		0.2%	0.0%	0.0%	0.2%	0.0%		0.2%	0.0%		0.2%	0.1%	
* p(x2) < .05																	

\*  $p(\chi^2) < .05$

\*\* Note: "Students of Color" includes American Indian or Native Alaskan, Asian or Asian American, Black or African American, Hispanic or Latino/a/x, Middle Eastern/North African or Arab Origin, Hawaiian or Other Pacific Islander Native, Biracial or Multiracial

\*\*\* Note: Negative suicidal screening=they were not screened as suicidal, Positive suicidal screening=screened as potentially suicidal