

Fentanyl Fathers Assembly Analysis

10/13/23 – 1/23/24

There were an estimated 14,740 students in attendance across 39 assembly presentations conducted at 36 Miami-Dade County, Florida high schools, two Oakland County, Michigan high schools, and one Stark County, Ohio high school. The high school assembly in Ohio invited one local middle school to attend its assembly. Each assembly presentation was slotted for 45-minutes to an hour and included viewing a 14-minute edited version of an award-winning video documentary called *Dead on Arrival*, testimony from a bereaved parent, naloxone training, and a slide deck outlining the prevalence, threat, and consequences of illicit fentanyl and counterfeit pills. Pre and posttest surveys were collected from students in attendance who used their cell phones to scan a QR code linked to a survey. The surveys elicited about a 12% response rate from attendees (1,778 respondents) across 38 assembly presentations, and no incentives for survey participation were provided. Survey participation was voluntary, and all responses were recorded anonymously. The demographic breakdown of survey participants from assembly presentations is presented in Table 1.

Respondent ages ranged from 11 or younger to 18 years or older, and there was a total of 1,778 respondents included in this analysis. The mean age of respondents was 16.7 years of age, and the largest proportion of respondents were 17 years of age (50.3%). There were more females (52.9%) than males (43.5%), and the majority were Hispanic or Latino (65.7%) and White or Caucasian (64.6%). There were more 12th grade respondents (65.4%) than any other grade represented in the analysis followed by 11th grade (15.9%), 10th grade (9.5%), and 9th grade (8.7%) students. Most students reported never using alcohol, marijuana, diverted prescription pharmaceuticals, or illicit drugs within 30-days of the assembly presentations (91.5%), however 5.3% of students reported 1–2-time monthly use, 1.0% reported weekly use, 0.5% reported use 2-3 times weekly, and 1.7% reported daily use of at least one of these substances.

Table 1. Demographic breakdown and PreMisuse Behaviors of survey respondents overall

Variable	Response option	N=1,778 n (%)
State	Michigan	147 (8.3)
	Florida	1,458 (82.0)
	Ohio	172 (9.7)
Age	11 or younger	6 (0.3)
	12	3 (0.2)
	13	7 (0.4)
	14	94 (5.3)
	15	169 (9.5)
	16	250 (14.1)
	17	894 (50.3)
	18 or older	355 (20.0)

Gender	Female	940 (52.9)
	Male	774 (43.5)
	Other	35 (2.0)
	Prefer not to say	29 (1.6)
Ethnicity	Hispanic or Latino	1,169 (65.7)
	Not Hispanic or Latino	609 (34.3)
Race	Black or African American	304 (17.1)
	White or Caucasian	1,148 (64.6)
	American Indian or Alaska Native	12 (0.7)
	Asian	59 (3.3)
	Native Hawaiian or Pacific Islander	12 (0.7)
	Some other race or Multiracial	243 (13.7)
Grade	6 th	4 (0.2)
	7 th	1 (0.7)
	8 th	5 (0.3)
	9 th	154 (8.7)
	10 th	169 (9.5)
	11 th	282 (15.9)
	12 th	1,163 (65.4)
PreMisuse Behavior	Never	1,627 (91.5)
	1-2 times a month	94 (5.3)
	Weekly	18 (1.0)
	2-3 times a week	9 (0.5)
	Daily	30 (1.7)

Attitude changes were measured across constructs informed by the Health Belief Model of Behavioral Theory which hypothesizes that if the perceived severity, susceptibility, self-efficacy, benefit, and barriers of engaging in a health promoting behavior, and participants are given a cue to action to participate in the health promoting behavior(s), then they will be more likely to engage in the health behavior(s) being promoted by the program (i.e. decreasing drug misuse behaviors, calling 9-1-1 and administering naloxone to reverse a witnessed overdose event, etc.). Respondents' pretest responses were compared with posttest responses answered at the end of assembly presentations. Each question was phrased the same in pretest and posttest surveys and used 10-point Likert scale score survey options. There were statistically significant ($p < 0.05$) attitude changes across every construct measured, with the largest magnitudes of change noted in the program's effectiveness to increase respondents' self-efficacy to recognize (15%) and respond (20%) to an opioid overdose and increase respondents' perceived knowledge about fentanyl and counterfeit pills (14%). The largest magnitude of change was observed in the program's effectiveness at reducing respondents' perceived barriers to accessing and administering naloxone (27%). The perceived benefit of drug abstinence and perceived severity of fentanyl and counterfeit pill use had high baseline mean scores at pretest and had lower percent magnitude changes as a result, 5% and 4% respectively. Perceived susceptibility of

experiencing or witnessing an opioid overdose after assemblies only increased by 9% after assembly presentations which could be an expected outcome since program implementation targeted a majority population with no history of drug or alcohol misuse.

Table 2. Mean attitude differences among pre and posttest scale score items overall

Variable	Description	Pretest Mean (SD) (N=1,778)	Posttest Mean (SD) (N=1,778)	Mean Difference (p-value)
PSevere	Perceived severity of fentanyl and counterfeit pill use	9.0 (1.8)	9.4 (1.7)	0.4 (<0.001)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	6.6 (2.6)	8.1 (2.1)	1.5 (<0.001)
SERespond	Self-efficacy to respond to an opioid overdose	5.8 (2.8)	7.8 (2.3)	2.0 (<0.001)
Pbenefit	Perceived benefit of drug abstinence	8.4 (2.6)	8.9 (2.3)	0.5 (<0.001)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	4.0 (3.1)	4.9 (3.3)	0.9 (<0.001)
Pbarriers	Perceived barriers to accessing and administering naloxone	7.4 (3.3)	4.7 (3.6)	-2.7 (<0.001)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	6.6 (2.8)	8.0 (2.4)	1.4 (<0.001)

Intention to reduce or abstain from drug misuse as a result of what students had learned from the presentation averaged 8.5 points on a 10-point Likert scale with a standard deviation of 2.7, while the intention to share information that they had learned with friends and family averaged 4.3 points on a 5-point scale with a standard deviation of 1.0.

Comparative Assembly Analysis

During this evaluation period, the program was implemented with two collaborating organizations, each serving different demographic-majority groups. One population was majority white, non-Hispanic with only 22% racial minority students represented, and a private all-boys high school included in Michigan. The other was a majority white, Hispanic population with over 40% racial minority populations represented in Florida public schools with more female respondents. The population served in Florida during this evaluation period was over 10 times the number of those served in Michigan; therefore, the strength of evidence for Florida would be greater, but evaluators wanted to see if pre-post attitude changes differed between the two implementation areas significantly and thus conducted separate analysis for the two focus areas (Michigan and Florida) by filtering results and analyses for each group of respondents.

Michigan

There were an estimated 1,240 students in attendance across five assembly presentation conducted at Groves High School and Catholic Central High School with an 11% survey response rate. The one-hour Groves High School presentation was given to an estimated 300, 12th grade students, while the Catholic Central High School presentations were broken up into four, 25-minute assembly presentations delivered subsequently to each grade-level's student body (12th, 11th, 10th, & 9th). Notably, Catholic Central is an "all-boys school." Elements from the one-hour assembly at Groves High School needed to be revised to fit within the time-constraints of addressing the students for a shortened presentations given at Catholic Central. The time-constraint also limited survey respondents, as students were told by the high school principal that the survey could be sent to them via e-mail after the assemblies if they were unable to scan to QR code within minutes of taking their seats at the start of the class period. This may have significantly disparaged the number of respondents captured from the larger student population reached at Catholic Central (Estimated 940 students based on administrator reporting). Given these implementation and process items, the demographic breakdown of both assembly presentations is presented below in Table 3.

Respondent ages ranged from 13 to 18 years or older, and there were a total of 140 respondents included in this analysis. The mean age of respondents was 16, and the largest proportion of respondents were 17 years of age (50.7%). There were more males (65.0%) than females (32.1%), and the majority were non-Hispanic (90.7%) and White or Caucasian (77.9%). There were more 12th grade respondents (55.7%) than any other grade represented in the analysis followed by 9th grade (21.4%), 11th grade (12.1%), and 10th grade (10.0%) students. The majority of students reported never using alcohol, marijuana, diverted prescription pharmaceuticals, or illicit drugs within 30-days of the assembly presentations (92.9%), however 6.4% of students reported 1–2-time use, and one student reported daily use of one of these substances prior to assemblies (0.7%).

Table 3. Demographic breakdown and PreMisuse Behaviors of survey respondents in Michigan

Variable	Response option	N=140 n (%)
Age	13	1 (0.7)

	14	23 (16.4)
	15	17 (12.1)
	16	20 (14.3)
	17	71 (50.7)
	18 or older	8 (5.7)
Gender	Female	45 (32.1)
	Male	91 (65.0)
	Other	2 (1.4)
	Prefer not to say	2 (1.4)
Ethnicity	Hispanic or Latino	13 (9.3)
	Not Hispanic or Latino	127 (90.7)
Race	Black or African American	13 (9.7)
	White or Caucasian	109 (77.9)
	American Indian or Alaska Native	3 (2.1)
	Asian	7 (5.0)
	Native Hawaiian or Pacific Islander	0 (0.0)
	Some other race or Multiracial	8 (5.7)
Grade	6 th	1 (0.7)
	9 th	30 (21.4)
	10 th	14 (10.0)
	11 th	17 (12.1)
	12 th	78 (55.7)
PreMisuse	Never	130 (92.9)
Behavior	1-2 times a month	9 (6.4)
	Weekly	0 (0.0)
	2-3 times a week	0 (0.0)
	Daily	1 (0.7)

Respondents' pretest responses were compared with posttest responses answered at the end of assembly presentations. Each question was phrased the same in pretest and posttest surveys and used 10-point Likert scale score survey options.

Like the overall analysis, there were statistically significant ($p < 0.05$) attitude changes across every construct measured, with the largest magnitudes of change noted in the program's effectiveness to increase respondents' self-efficacy to recognize (20%) and respond (23%) to an opioid overdose and increase respondents' perceived knowledge about fentanyl and counterfeit pills (16%). The largest magnitude of change was observed in the program's effectiveness at reducing respondents' perceived barriers to accessing and administering naloxone (24%). Perceived benefit of drug abstinence and perceived severity of fentanyl and counterfeit pill use had high baseline mean scores at pretest and had lower percent magnitude changes as a result, 6% and 6% respectively. Perceived susceptibility of experiencing or witnessing an opioid overdose after assemblies only increased by 12% after assembly presentations which could be an

expected outcome since program implementation targeted a majority population with no history of drug or alcohol misuse.

Table 4. Mean attitude differences among pre and posttest scale score items in Michigan

Variable	Description	Pretest Mean (SD) (N=140)	Posttest Mean (SD) (N=140)	Mean Difference (p-value)
Psevere	Perceived severity of fentanyl and counterfeit pill use	9.0 (1.5)	9.6 (0.9)	0.6 (<0.001)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	6.3 (2.5)	8.3 (1.8)	2.0 (<0.001)
SERespond	Self-efficacy to respond to an opioid overdose	5.9 (2.7)	8.2 (1.8)	2.3 (<0.001)
Pbenefit	Perceived benefit of drug abstinence	8.7 (2.4)	9.3 (2.8)	0.6 (0.001)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	3.9 (2.8)	5.1 (3.1)	1.2 (<0.001)
Pbarriers	Perceived barriers to accessing naloxone	7.0 (3.3)	4.6 (3.5)	-2.4 (<0.001)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	6.6 (2.8)	8.2 (1.9)	1.6 (<0.001)

Intention to reduce drug misuse as a result of what students had learned from the presentation averaged 8.8 points on a 10-point Likert scale with a standard deviation of 2.41, while the intention to share information they had learned with friends and family averaged 4.2 points on a 5-point scale with a standard deviation of 0.94.

Florida

There were an estimated 12,550 students in attendance across 36 assembly presentations conducted at Miami-Dade County public high schools. The demographic breakdown of respondents from these assemblies is presented in Table 5.

Respondent ages ranged from 14 to 18 years or older, and there was a total of 1,458 respondents included in this analysis. The mean age of respondents was 16.7 years of age, and

the largest proportion of respondents were 17 years of age (53.9%). There were more females (55.0%) than males (42.0%), and the majority were Hispanic or Latino (78.7%) and White or Caucasian (59.9%). There were more 12th grade respondents (71.9%) than any other grade represented in the analysis followed by 11th grade (15.5%), 10th grade (6.8%), and 9th grade (5.5%) students. Most students reported never using alcohol, marijuana, diverted prescription pharmaceuticals, or illicit drugs within 30-days of the assembly presentations (91.3%), however 5.5% of students reported 1–2-time monthly use, 1.1% reported weekly use, 0.5% reported use 2-3 times weekly, and 1.6% reported daily use of at least one of these substances.

Table 5. Demographic breakdown and PreMisuse Behaviors of survey respondents in Florida

Variable	Response option	N=1,458 n (%)
Age	11 or younger	1 (0.1)
	12	2 (0.1)
	13	5 (0.3)
	14	43 (2.9)
	15	106 (7.3)
	16	176 (12.1)
	17	786 (53.9)
	18 or older	339 (23.3)
Gender	Female	802 (55.0)
	Male	613 (42.0)
	Other	22 (1.5)
	Prefer not to say	21 (1.4)
Ethnicity	Hispanic or Latino	1,147 (78.7)
	Not Hispanic or Latino	311 (21.3)
Race	Black or African American	286 (19.6)
	White or Caucasian	873 (59.9)
	American Indian or Alaska Native	8 (0.5)
	Asian	51 (3.5)
	Native Hawaiian or Pacific Islander	11 (0.8)
	Some other race or Multiracial	229 (15.7)
Grade	8 th	5 (0.3)
	9 th	80 (5.5)
	10 th	99 (6.8)
	11 th	226 (15.5)
	12 th	1,048 (71.9)
PreMisuse Behavior	Never	1,331 (91.3)
	1-2 times a month	80 (5.5)
	Weekly	16 (1.1)
	2-3 times a week	8 (0.5)
	Daily	23 (1.6)

Similar to Michigan, there were statistically significant ($p<0.05$) attitude changes across every construct measured, with the largest magnitudes of change noted in the program's effectiveness to increase respondents' self-efficacy to recognize (13%) and respond (19%) to an opioid overdose and increase respondents' perceived knowledge about fentanyl and counterfeit pills (13%). The largest magnitude of change was observed in the program's effectiveness at reducing respondents' perceived barriers to accessing and administering naloxone (27%). Perceived benefit of drug abstinence and perceived severity of fentanyl and counterfeit pill use had high baseline mean scores at pretest and had lower percent magnitude changes as a result, 4% and 5% respectively. Perceived susceptibility of experiencing or witnessing an opioid overdose after assemblies only increased by 9% after assembly presentations which could be because the majority of respondents had no history of previous drug or alcohol misuse.

Table 6. Mean attitude differences among pre and posttest scale score items in Florida

Variable	Description	Pretest Mean (SD) (N=1,458)	Posttest Mean (SD) (N=1,458)	Mean Difference (p-value)
Psevere	Perceived severity of fentanyl and counterfeit pill use	9.0 (1.8)	9.4 (1.7)	0.4 (<0.001)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	6.7 (2.6)	8.0 (2.1)	1.3 (<0.001)
SERespond	Self-efficacy to respond to an opioid overdose	5.8 (2.8)	7.7 (2.3)	1.9 (<0.001)
Pbenefit	Perceived benefit of drug abstinence	8.4 (2.6)	8.9 (2.3)	0.5 (0.001)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	4.0 (3.1)	4.9 (3.3)	0.9 (<0.001)
Pbarriers	Perceived barriers to accessing naloxone	7.5 (3.3)	4.8 (3.6)	-2.7 (<0.001)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	6.6 (2.8)	7.9 (2.4)	1.3 (<0.001)

When comparing the mean attitude changes between the two populations, there were statistically significant ($p<0.05$) change differences between the two groups. In Michigan, there

was a statistically significant greater change in perceived severity (2%), self-efficacy to recognize (7%) and respond (4%) to an opioid overdose, and perceived knowledge about fentanyl and counterfeit pills (3%). There were not statistically significant mean differences observed for perceived benefit, susceptibility, or perceived barriers during this analysis. The magnitude of mean differences was relatively small, and the sample size in Michigan was considerably smaller than the sample size in Florida, however this information could provide focused insights into opportunities for improving curriculum, implementation, or program fidelity across focus areas with differing student populations. Both areas were successful in achieving statistically significant attitude changes across all program outcomes despite demographic and geographic differences.

Table 7. Mean attitude differences with side-by-side state comparison percent differences

Variable	Description	Michigan Mean Diff (SD) (N=140)	Florida Mean Diff (SD) (N=1,458)	Difference % (p-value)
Psevere	Perceived severity of fentanyl and counterfeit pill use	0.6 (1.5)	0.4 (1.9)	2% (<0.05)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	2.0 (2.3)	1.3 (2.5)	7% (<0.05)
SERespond	Self-efficacy to respond to an opioid overdose	2.3 (2.7)	1.9 (2.6)	4% (<0.05)
Pbenefit	Perceived benefit of drug abstinence	0.6 (2.2)	0.5 (2.5)	1% (>0.05)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	1.2 (2.4)	0.9 (3.0)	3% (>0.05)
Pbarriers	Perceived barriers to accessing naloxone	-2.4 (5.1)	-2.7 (4.6)	3% (>0.05)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	1.6 (2.5)	1.3 (2.9)	3% (<0.05)

Graphs & Figures

Figure 1. Graphical depictions of overall survey respondent demographics & baseline misuse.



Figure 2. Graphical depictions of program demographics and baseline misuse for Michigan

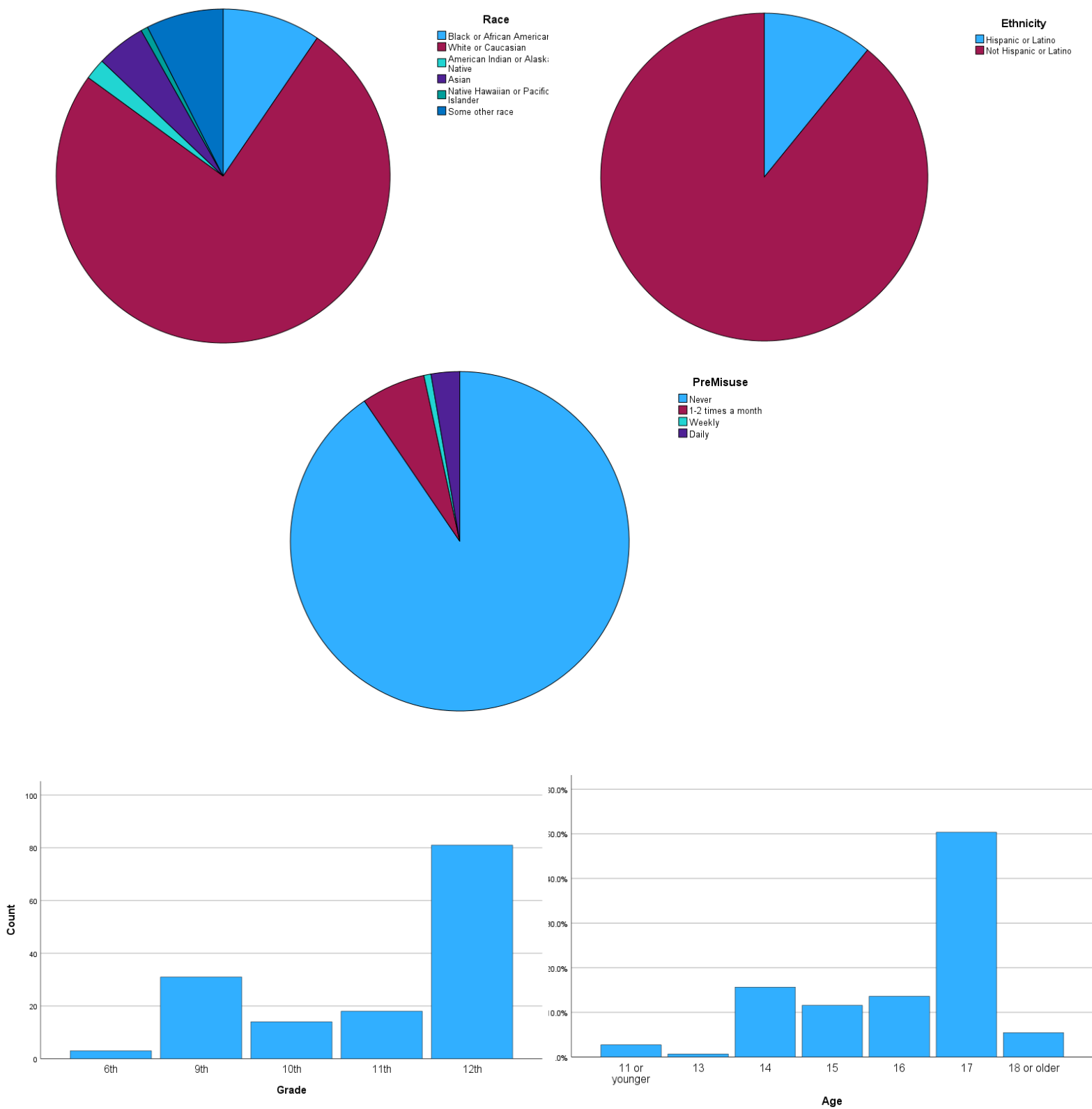


Figure 3. Graphical depictions of program demographics and baseline misuse for Florida

