

Fentanyl Fathers Assembly Analysis

9/1/24 – 2/4/25

There were an estimated 36,028 students and community members in attendance across 89 assembly presentations conducted at 37 Florida middle schools, 11 Florida high schools, 26 Michigan high schools, one Michigan middle school, and three Michigan community events. Florida assemblies were implemented across Miami-Dade, Broward, and Santa Rosa counties; while Michigan assemblies ranged across Oakland, Livingston, Genesee, and Lapeer counties. Additionally, 1,052 doses of naloxone were distributed to school administrators and community members over the same period. Each assembly presentation was slotted for 45-minutes to an hour and included viewing a 14-minute version of an award-winning video documentary called *Dead on Arrival*, or a 10-minute diverse edition of the film, testimony from a bereaved parent(s), 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 an 9% response rate from attendees (3,123 respondents) across 86 school assembly presentations, and no incentives for survey participation were provided. Surveys were not distributed during community events. This is a lower response rate than previous analyses largely because more middle school students were served during the implementation period, and many schools did not allow students to have cell phones during the assemblies among other challenges. 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 3,123 respondents included in this analysis. The mean age of respondents was 15.3 years of age, and the largest proportion of respondents were 14 years of age (25.9%), 17 years of age (22.4%), 15 years of age (21.1), and 16 years of age (16.5%) subsequently. There were more females (53.4%) than males (42.6%), and more non-Hispanic or Latino (79.5%) compared to Hispanic or Latino respondents (20.5%). Most respondents were White or Caucasian (66.9%), followed by Black or African American (12.4%), and Some other race or multiracial (13.6). There were more 9th grade respondents (27.2%) than any other grade represented in the analysis followed by 12th grade (24.8%), 10th grade (18.3%), and 11th grade (15.7%) students. Most students reported never using alcohol, marijuana, diverted prescription pharmaceuticals, or illicit drugs within 30-days of the assembly presentations (93.4%), however 3.1% of students reported 1–2-time monthly use, and 2.0% 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=3,123 n (%)
State	Michigan	2260 (72.4)
	Florida	850 (27.2)
	Alaska	6 (0.2)
	Ohio	5 (0.2)
	Texas	2 (0.1)

Age	11 or younger	27 (0.9)
	12	66 (2.1)
	13	211 (6.8)
	14	809 (25.9)
	15	658 (21.1)
	16	516 (16.5)
	17	700 (22.4)
	18 or older	136 (4.4)
Gender	Female	1668 (53.4)
	Male	1329 (42.6)
	Other	50 (1.6)
	Prefer not to say	76 (2.4)
Ethnicity	Hispanic or Latino	639 (20.5)
	Not Hispanic or Latino	2484 (79.5)
Race	Black or African American	388 (12.4)
	White or Caucasian	2090 (66.9)
	American Indian or Alaska Native	34 (1.1)
	Asian	162 (5.2)
	Native Hawaiian or Pacific Islander	24 (0.8)
	Some other race or Multiracial	425 (13.6)
Grade	6 th	48 (1.5)
	7 th	111 (3.6)
	8 th	280 (9.0)
	9 th	848 (27.2)
	10 th	570 (18.3)
	11 th	490 (15.7)
	12 th	776 (24.8)
PreMisuse Behavior	Never	2918 (93.4)
	1-2 times a month	96 (3.1)
	Weekly	28 (0.9)
	2-3 times a week	20 (0.6)
	Daily	61 (2.0)

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 (14%) and respond (17%) to an opioid overdose and increase respondents' perceived

susceptibility to witnessing or experiencing a fatal overdose from fentanyl (11%). The largest magnitude of change was observed in the program's effectiveness at reducing respondents' perceived barriers to accessing and administering naloxone (-25%). 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, 3% and 4% respectively. Perceived susceptibility of experiencing or witnessing an opioid overdose after assemblies increased by 11% after assembly presentations which could be an expected outcome since program implementation targeted a majority population with no history of drug or alcohol misuse (93.4%).

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

Variable	Description	Pretest Mean (SD) (N=3,123)	Posttest Mean (SD) (N=31,23)	Mean Difference (p-value)
PSevere	Perceived severity of fentanyl and counterfeit pill use	8.9 (1.9)	9.3 (1.8)	0.4 (<0.001)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	6.5 (2.6)	7.9 (2.2)	1.4 (<0.001)
SERespond	Self-efficacy to respond to an opioid overdose	5.9 (2.8)	7.6 (2.4)	1.7 (<0.001)
Pbenefit	Perceived benefit of drug abstinence	8.3 (2.7)	8.6 (2.6)	0.3 (<0.001)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	4.3 (3.0)	5.4 (3.2)	1.1 (<0.001)
Pbarriers	Perceived barriers to accessing and administering naloxone	7.2 (3.3)	4.7 (3.5)	-2.5 (<0.001)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	6.8 (2.6)	7.7 (2.4)	0.9 (<0.001)

Intention to reduce or abstain from drug misuse because of what students had learned from the presentation averaged 8.0 points on a 10-point Likert scale with a standard deviation of 3.0, while the intention to share information that they had learned with friends and family averaged 4.1 points on a 5-point scale with a standard deviation of 1.1.

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 27.5% racial minority students represented across four counties in Michigan. The other was a majority white, Hispanic population with over 46.9% racial minority populations represented across three counties in Florida. The population served in Michigan during this evaluation period was 2.6 times the number of those served in Florida; therefore, the strength of evidence for Michigan would be slightly 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

An estimated 15,278 students attended school and community assembly presentations across Oakland, Livingston, Genesee, and Lapeer counties, with a 15% survey response rate. The majority of assemblies were conducted in Oakland County (70%). The demographic breakdown of these assemblies is presented in Table 3. Respondents ranged in age from 11 to 18 years or older, with a total of 2,260 participants included in this analysis. The mean age was 15.6, and the largest proportion of respondents were 17 years old (26.7%). More respondents were female (54.7%) than male (41.7%). The majority were non-Hispanic (90.3%) and White or Caucasian (72.5%).

Ninth grade had the highest representation (32.2%), followed by twelfth grade (29.6%), tenth grade (21.0%), and eleventh grade (17.1%). Most students (93.8%) reported no use of alcohol, marijuana, diverted prescription pharmaceuticals, or illicit drugs within 30 days of the assembly presentations. However, 3.1% reported using at least one of these substances 1–2 times, and 1.8% reported daily use.

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

Variable	Response option	N=2,260 n (%)
Age	11 or younger	1 (<0.1)
	13	13 (0.6)
	14	576 (25.5)
	15	546 (24.2)
	16	412 (18.2)
	17	603 (26.7)
	18 or older	109 (4.8)
Gender	Female	1236 (54.7)
	Male	942 (41.7)
	Other	33 (1.5)
	Prefer not to say	49 (2.2)

Ethnicity	Hispanic or Latino	220 (9.7)
	Not Hispanic or Latino	2040 (90.3)
Race	Black or African American	244 (10.8)
	White or Caucasian	1638 (72.5)
	American Indian or Alaska Native	29 (1.3)
	Asian	129 (5.7)
	Native Hawaiian or Pacific Islander	14 (0.6)
	Some other race or Multiracial	206 (9.1)
Grade	6 th	1 (<0.1)
	9 th	728 (32.2)
	10 th	475 (21.0)
	11 th	386 (17.1)
	12 th	670 (29.6)
PreMisuse Behavior	Never	2119 (93.8)
	1-2 times a month	69 (3.1)
	Weekly	18 (0.8)
	2-3 times a week	13 (0.6)
	Daily	41 (1.8)

Respondents' pretest responses were compared with their posttest responses, collected at the end of the assembly presentations. Each question was phrased identically in both the pretest and posttest surveys and used a 10-point Likert scale. Similar to the overall analysis, statistically significant attitude changes ($p < 0.05$) were observed across all measured constructs. The most notable increases were in respondents' self-efficacy to recognize (16%) and respond (20%) to an opioid overdose, perceived susceptibility to witnessing or experiencing an overdose (12%), and perceived knowledge about fentanyl and counterfeit pills (11%).

The greatest magnitude of change was in the program's effectiveness at reducing respondents' perceived barriers to accessing and administering naloxone (29%). This represents the largest percentage change across any construct, likely due to the extensive naloxone community resources introduced during the presentations. Perceived benefits of drug abstinence and perceived severity of fentanyl and counterfeit pill use had high baseline mean scores in the pretest, resulting in smaller percentage changes of 4% and 5%, respectively.

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

Variable	Description	Pretest Mean (SD) (N=2,260)	Posttest Mean (SD) (N=2,260)	Mean Difference (p-value)
Psevere	Perceived severity of fentanyl and counterfeit pill use	9.0 (1.8)	9.5 (1.5)	0.5 (<0.001)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	6.4 (2.5)	8.0 (2.0)	1.6 (<0.001)

SERespond	Self-efficacy to respond to an opioid overdose	5.8 (2.7)	7.8 (2.2)	2.0 (<0.001)
Pbenefit	Perceived benefit of drug abstinence	8.4 (2.6)	8.8 (2.4)	0.4 (<0.001)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	4.3 (2.9)	5.5 (3.1)	1.2 (<0.001)
Pbarriers	Perceived barriers to accessing naloxone	7.3 (3.2)	4.4 (3.4)	-2.9 (<0.001)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	6.7 (2.6)	7.8 (2.2)	1.1 (<0.001)

Intention to reduce drug misuse as a result of what students had learned from the presentation averaged 8.0 points on a 10-point Likert scale with a standard deviation of 3.0, while the intention to share information they had learned with friends and family averaged 4.0 points on a 5-point scale with a standard deviation of 1.1.

Florida

There were an estimated 20,850 students in attendance across 49 assembly presentations conducted across Santa Rosa, Broward and Miami-Dade counties, with the largest implementation done in Miami-Dade County middle schools (36). The demographic breakdown of respondents from these assemblies is presented in Table 5. Respondent ages ranged from 11 to 18 years or older, with a total of 850 participants included in this analysis. The response rate was 4.1%, which is relatively low, partly due to limited cell phone use among middle school students and other data collection challenges (e.g., presentation announcements, communication with administrators). The mean age of respondents was 14.4 years, and 60.9% were 14 years old or younger.

There were more female respondents (50.7%) than male respondents (45.4%). The proportion of Hispanic or Latino respondents (48.4%) was nearly equal to that of non-Hispanic or Latino respondents. Additionally, 46.9% of respondents identified as belonging to a minority group, while 53.1% identified as White or Caucasian. Eighth grade had the highest representation (32.9%), followed by ninth grade (14.0%), seventh grade (13.1%), and nearly equal distributions of tenth (11.8%), eleventh (12.2%), and twelfth grades (11.9%). Most students (93.2%) reported no use of alcohol, marijuana, diverted prescription pharmaceuticals, or illicit drugs within 30 days of the assembly presentations. However, 3.2% reported using at least one of these substances 1–2 times per month, 0.9% reported weekly use, 0.8% reported using 2–3 times per week, and 1.9% reported daily use.

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

Variable	Response option	N=850 n (%)
Age	11 or younger	21 (2.5)
	12	66 (7.8)
	13	198 (23.3)
	14	232 (27.3)
	15	112 (13.2)
	16	103 (12.1)
	17	97 (11.4)
	18 or older	21 (2.5)
Gender	Female	431 (50.7)
	Male	386 (45.4)
	Other	11 (1.3)
	Prefer not to say	22 (2.6)
Ethnicity	Hispanic or Latino	411 (48.4)
	Not Hispanic or Latino	439 (51.6)
Race	Black or African American	141 (16.6)
	White or Caucasian	451 (53.1)
	American Indian or Alaska Native	5 (0.6)
	Asian	29 (3.4)
	Native Hawaiian or Pacific Islander	6 (0.7)
	Some other race or Multiracial	218 (25.6)
Grade	6 th	41 (4.8)
	7 th	111 (13.1)
	8 th	280 (32.9)
	9 th	119 (14.0)
	10 th	94 (11.8)
	11 th	104 (12.2)
	12 th	101 (11.9)
PreMisuse Behavior	Never	792 (93.2)
	1-2 times a month	27 (3.2)
	Weekly	8 (0.9)
	2-3 times a week	7 (0.8)
	Daily	16 (1.9)

Similar to Michigan, there were statistically significant attitude changes ($p < 0.05$) across most constructs. However, three constructs showed no significant change: perceived severity of fentanyl and counterfeit pills ($p = 0.78$), perceived benefit of drug abstinence ($p = 0.23$), and perceived knowledge about fentanyl ($p = 0.61$). The largest magnitudes of change were observed in the program's effectiveness at increasing respondents' self-efficacy to recognize (8%) and respond (10%) to an opioid overdose. The most substantial change was in reducing perceived barriers to accessing and administering naloxone (15%).

This is the first time that no significant changes in attitude have been observed across three constructs in a specific area during any program implementation period. Additionally, the

constructs that did show significant changes had relatively smaller magnitudes of change compared to other areas and previous implementation periods. Perceived susceptibility to experiencing or witnessing an opioid overdose increased by only 5% following the assemblies, possibly because the majority of respondents (93.2%) had no history of drug or alcohol misuse.

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

Variable	Description	Pretest Mean (SD) (N=850)	Posttest Mean (SD) (N=850)	Mean Difference (p-value)
Psevere	Perceived severity of fentanyl and counterfeit pill use	8.9 (2.1)	9.0 (2.3)	0.1 (0.78)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	6.8 (2.6)	7.6 (2.6)	0.8 (<0.001)
SERespond	Self-efficacy to respond to an opioid overdose	6.2 (2.8)	7.2 (2.7)	1.0 (<0.001)
Pbenefit	Perceived benefit of drug abstinence	8.1 (2.9)	8.2 (3.0)	0.1 (0.229)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	4.5 (3.2)	5.0 (3.3)	0.5 (<0.001)
Pbarriers	Perceived barriers to accessing naloxone	7.0 (3.9)	5.5 (3.7)	-1.5 (<0.001)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	7.2 (2.7)	7.2 (3.0)	<0.1 (0.614)

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 (4%), self-efficacy to recognize (8%) and respond (9%) to an opioid overdose, perceived benefit of drug abstinence (3%), perceived susceptibility of witnessing or experiencing an overdose (7%), and perceived knowledge about fentanyl and counterfeit pills (12%). The largest, and most surprising mean difference was the perceived barriers to accessing naloxone, which was a 14% greater difference for the Florida respondents. Every attitude measured had a greater percentage change in the Michigan population.

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

Variable	Description	Michigan Mean Diff (SD) (N=2,260)	Florida Mean Diff (SD) (N=850)	Difference % (p-value)
Psevere	Perceived severity of fentanyl and counterfeit pill use	0.5 (1.6)	0.1 (2.1)	4% (<0.05)
SERecognize	Self-efficacy to recognize the signs of an opioid overdose	1.6 (2.5)	0.8 (2.8)	8% (<0.05)
SERespond	Self-efficacy to respond to an opioid overdose	2.0 (2.6)	1.1 (2.9)	9% (<0.05)
Pbenefit	Perceived benefit of drug abstinence	0.4 (2.4)	0.1 (2.4)	3% (<0.05)
Psusceptible	Perceived susceptibility to witnessing or experiencing an overdose	1.2 (2.7)	0.5 (3.0)	7% (<0.05)
Pbarriers	Perceived barriers to accessing naloxone	-2.9 (4.5)	-1.5 (4.2)	14% (<0.05)
PKNOW	Perceived knowledge about fentanyl and counterfeit pills	1.2 (2.8)	<0.1 (3.0)	12% (<0.05)

Conclusions

This analysis provides valuable insights into opportunities for improving curriculum, implementation, and program fidelity across different student populations. During the implementation period in Florida, curriculum adjustments were made to align with district policies, incorporating more videos throughout the presentation. However, these additions may have inadvertently distracted from the educational component, which is crucial to the program's effectiveness. In contrast, the presentation format used in Michigan has consistently produced strong results. Replicating and refining this successful model is essential moving forward.

One of the most concerning findings was the lack of statistically significant change in perceived knowledge about fentanyl and counterfeit pills among the Florida sample population. While other constructs that showed no significant change—such as the perceived benefit of drug abstinence and the perceived severity of fentanyl use—tend to yield lower baseline scores, knowledge-based metrics typically do not. This suggests a need for a targeted restructuring of the Florida curriculum. Additionally, improving survey response rates is critical to maintaining program integrity and guiding future improvements. The 4% response rate in Florida significantly limits the reliability of these findings. Furthermore, the results indicate that the

current presentation format in Florida may be less effective for middle school students, who made up the majority of attendees in Florida during this implementation period.

To enhance data collection, presenters should coordinate with school administrators beforehand to ensure students have access to their cell phones at the beginning of presentations for survey participation. These survey results are instrumental in building relationships with new school districts and expanding the program's reach. Ultimately, the goal remains clear: increasing awareness and preventing overdose and poisoning among America's youth. To achieve this, the Florida curriculum will undergo a comprehensive restructuring, integrating the proven success of Michigan's program as an evidence-based model for improvement.