



A Multi-Site Case Study Evaluation of Mandated SBIRT Policy in Massachusetts Public Schools

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Background

Massachusetts recently enacted House Bill 4056 requiring all schools to offer **Screening Brief Intervention and Referral to Treatment (SBIRT)** to middle and high school students to advance universal and indicated prevention of alcohol and other drug use and to help address access barriers for youth needing or seeking healthcare. Understanding acceptability of school SBIRT and markers of success is vital for state-scaled implementation and outcomes evaluation.

Objectives

In select districts that adopted school SBIRT prior to HB 4056, investigate student and staff experiences regarding the model's:

- feasibility and acceptability
- implementation challenges and approaches to overcoming them
- lessons learned and sustainability strategies

Methods

Mixed-methods evaluation using data from staff focus groups (FGs) and student surveys to ascertain factors associated with acceptability in two districts with 5 schools and n=1,326 youth. FGs (n=4) with n=46 nurses and guidance counselors were facilitated by research staff, audio recorded and analyzed thematically. Youth in grades 7, 9, & 10 who participated in school SBIRT in 2016-17 were anonymously surveyed under passive parental consent; data were analyzed using descriptive statistics. FG and survey data were triangulated to synthesize perspectives.

Results

Table 1: Substance Use of Total Sample and by Middle/High School (n=812)

	Total N (%)	Middle School Students † N (%)	High School Students ‡ N (%)	P value
Total	812	511 (62.9%)	301 (37.1%)	
Past Year Alcohol Use				<0.0001
Yes	161 (19.8%)	49 (9.6%)	112 (37.2%)	
No	651 (80.2%)	462 (90.4%)	189 (62.8%)	
Past Year Binge Drinking ^a				0.1773
Yes	86 (53.4%)	21 (42.9%)	65 (58.0%)	
No	71 (44.1%)	27 (55.1%)	44 (39.3%)	
Past Year Extreme Binge Drinking ^b				0.3462
Yes	32 (27.2%)	6 (28.6%)	26 (40.0%)	
No	54 (62.8%)	15 (71.4%)	39 (60.0%)	
Past Year Marijuana Use				<0.0001
Yes	88 (10.8%)	16 (10.8%)	72 (23.9%)	
No	722 (88.9%)	494 (88.9%)	228 (75.7%)	
Frequency of Marijuana use among past year users ^c				0.3764
Once or Twice	52 (59.1%)	7 (43.8%)	45 (62.5%)	
Monthly	13 (14.8%)	3 (18.8%)	10 (13.9%)	
Weekly or more	23 (26.1%)	6 (37.5%)	17 (23.6%)	
Past Year Polysubstance Use (Alcohol and Marijuana Use)				<0.0001
Yes	78 (9.6%)	13 (2.5%)	65 (21.6%)	
No	734 (90.4%)	498 (97.5%)	236 (78.4%)	

* P-values from X² or Wilcoxon tests to compare the differences in sociodemographic characteristics and substance use behaviors between MS and HS Students
 † Total column displays column % while row % is displayed elsewhere
 ‡ Column %'s displayed among total MS participants (N=511)
 † Column %'s displayed among total HS participants (N=301)
^a Among past year drinkers with complete data on binge drinking; N=161 total; N=49 in MS; N=112 in HS.
^b Among past year binge drinkers with complete data on extreme binge drinking; N=86 total; N=21 MS; N=65 HS.
^c Among past year MJ users with complete data of frequency of MJ use; N=88 total; N=16 in MS; N=72 HS.

Table 3: Factors Influencing Student Responses to SBIRT Screening (n=435)

	Total N (%)	Past Year Alcohol Use No†	Yes‡	P value
Total	435 (100%)	363 (83.5%)	72 (16.5%)	
I could get in trouble at school				0.0007
No	342 (78.6%)	297 (81.8%)	45 (62.5%)	
Yes	86 (19.8%)	60 (16.5%)	26 (36.1%)	
The nurse/guidance counselor might call my parents/guardians				0.0013
No	326 (74.9%)	283 (78.0%)	43 (59.7%)	
Yes	104 (23.9%)	75 (20.7%)	29 (40.3%)	
I could get my friends in trouble				0.1302
No	334 (76.8%)	285 (78.5%)	49 (68.1%)	
Yes	94 (21.6%)	72 (19.8%)	22 (30.6%)	
I could be forced to get counseling for substance use				0.2053
No	352 (80.9%)	299 (82.4%)	53 (73.6%)	
Yes	77 (17.7%)	59 (16.3%)	18 (25.0%)	
I might not be able to participate in sports or other activities				0.0161
No	339 (77.9%)	291 (80.2%)	48 (66.7%)	
Yes	92 (21.1%)	68 (18.7%)	24 (33.3%)	
If the screening takes a long time, people will assume I have a problem with alcohol/drugs				0.6624
No	364 (83.7%)	302 (83.2%)	62 (86.1%)	
Yes	68 (15.6%)	58 (16.0%)	10 (13.9%)	
It is not the school's business to know about my personal life				<0.0001
No	330 (75.9%)	292 (80.4%)	38 (52.8%)	
Yes	96 (22.1%)	62 (17.1%)	34 (47.2%)	
I don't know or trust the person who screened me				0.0039
No	351 (80.7%)	303 (83.5%)	48 (66.7%)	
Yes	72 (16.6%)	52 (14.3%)	20 (27.8%)	
Did you respond to the screening questions honestly?				0.0269
Yes, all	394 (90.6%)	341 (93.9%)	53 (73.6%)	
Yes, some	29 (6.7%)	17 (4.7%)	12 (16.7%)	
No, none	9 (2.1%)	2 (0.6%)	7 (9.7%)	

* P-values for X² test to compare the differences screening experience by past year alcohol use
 † Total column displays column % among pts who recalled being screened (N=435) while row % is shown elsewhere
 ‡ Column % displayed among past year non-drinkers and those screened for substance use
 † Column % displayed among past year alcohol users and those screened for substance use

Table 2: Student Experiences of School SBIRT among youth who recall being screened (n=435)

	Total N (%)	Past Year Alcohol Use No†	Yes‡	P value
Total	435 (100%)	363 (83.5%)	72 (16.5%)	
Understood the Information				0.6317
Agree/Strongly Agree	408 (93.8%)	341 (93.9%)	67 (93.1%)	
Disagree/Strongly Disagree	24 (5.5%)	19 (5.2%)	5 (5.9%)	
Information Presented was Useful				0.0021
Agree/Strongly Agree	321 (73.8%)	279 (76.9%)	42 (58.3%)	
Disagree/Strongly Disagree	110 (25.3%)	82 (22.6%)	28 (38.9%)	
I Learned Something New				0.0166
Agree/Strongly Agree	219 (50.3%)	193 (53.2%)	26 (36.1%)	
Disagree/Strongly Disagree	214 (49.2%)	169 (46.6%)	45 (62.5%)	
I Believed the Information				0.0042
Agree/Strongly Agree	390 (89.7%)	333 (91.7%)	57 (79.2%)	
Disagree/Strongly Disagree	40 (9.2%)	26 (7.2%)	14 (19.4%)	
I Felt Comfortable				0.0416
Agree/Strongly Agree	309 (71.0%)	266 (73.3%)	43 (59.7%)	
Disagree/Strongly Disagree	117 (26.9%)	89 (24.5%)	28 (38.9%)	
My Privacy was Respected				0.0623
Agree/Strongly Agree	368 (84.6%)	313 (86.2%)	55 (76.4%)	
Disagree/Strongly Disagree	59 (13.6%)	43 (11.8%)	16 (22.2%)	
Would Go to Screener in the Future				0.0397
Agree/Strongly Agree	272 (62.5%)	236 (65.0%)	36 (50.0%)	
Disagree/Strongly Disagree	149 (34.3%)	115 (31.7%)	34 (47.2%)	

* P-values for X² test to compare the differences screening experience by past year alcohol use
 † Total column displays column % among participants screened (N=435) while row % is displayed elsewhere
 ‡ Column % displayed among past year non-drinkers and those screened for substance use
 † Column % displayed among past year alcohol users and those screened for substance use

Table 4: Illustrative Quotes from Staff Focus Groups

Major Theme: Unanticipated Benefits	
Engagement around health topics	<p>"But we know [about her] now, and we will keep a closer eye on her and the guidance counselor knows--Which is interesting, because maybe now she's made the connection that we will help her."</p> <p>"The question was asked to this little girl and she said "Finally, someone's asking me the question and I'm happy to answer," and she answered truthfully and she really needed help. She was drinking before school. No one had known about it."</p>
Relationship building	<p>"And they're all aware now that they can come to a guidance counselor, they can come to a nurse, and openly talk about these things. And we have had kids come back and tell us about family members and drug use and things that they probably wouldn't have before."</p> <p>"And it brings up other things for kids as well--I had a kid this year who is questioning their sexual identity, and I was then able to bring that up to their guidance counselor so that someone could then support this kid wherever they are."</p> <p>"I know there was one student that I met with who I didn't feel like it was to the point where she needed some help, but it started a great conversation and now she's a girl that I meet with regularly."</p> <p>"...and the last thing I say to them if everything is negative--"This is great, keep up the good work. But don't ever feel if you're in a situation you have nowhere to go. Don't ever feel like that."</p>
Educational opportunities	<p>"Even some of the kids who pretend they're not even paying attention to you, when you take out the brain scan and they actually see it, it's like...it's not just you babbling on anymore, they're like "Oh this is real."</p>
Major Theme: Barriers and Challenges to Successful Implementation	
Staff resistance	<p>"There was a lot of--I don't know if suspicion is the right word, but a lot of doubt that it was a worthwhile, skepticism that it was a worthwhile endeavor--and I think a lot of worry that the guidance department was going to have to carry a lot of stuff, like an extra load, when they already feel like they have too much on their plates and are so overwhelmed."</p>
Logistics	<p>"We need a lot more manpower to do our screenings now. And fortunately guidance is helping us. But it's not easy for them either because they have heavy caseloads and they have kids wanting to come talk to them all the time."</p>
Student discomfort	<p>"that whole concept of eye-to-eye when you ask someone a point-blank question and they're ninth graders and they just are going to say no. They are afraid."</p>

Conclusions

For students and staff, program acceptability was high. Students reported candid disclosure; their stated openness to returning to staff to discuss alcohol and other drug use was a key indicator of success and bodes well for case finding and clinical response to at-risk youth. For staff, success was reframed as relationship building not youth disclosure. Results are promising for a strategy that extends SBIRT to schools in advance of diffusion and evaluation at state scale.

Implications

- Achieving goals of delaying onset/reducing use of substances among youth may be enabled by implementing SBIRT in schools.
- Success is likely to depend on staff/community buy-in and availability of support services for at-risk youth.
- Rigorous testing of the model across diverse settings/samples will be revealing of success as state-scaled evaluation proceeds.

Limitations

- Sites and participants are selected and non-representative.
- Findings are self-report, cross-sectional.

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