MONTANA LEGISLATIVE SERVICES DIVISION
Office of Research and Policy Analysis
ORPA

January 2022

Children, Families, Health, and Human Services Interim Committee
Sue O'Connell, Legislative Research Analyst

HJR 35: CHILDREN'S MENTAL HEALTH SCHOOL-BASED DEPRESSION SCREENING

BACKGROUND

In 2016, the Montana Suicide Mortality Review Team made six recommendations for legislative action, including mandatory depression screening for all schoolchildren ages 11 to 17. The recommendation came after the team reviewed 555 suicides over a 26-month period.

During that time, 27 youth under the age of 18 committed suicide. Half of them had no known mental health issues. Only five of them, or 20%, were known to have depression at the time they committed suicide. The two youngest were 11 years old.

This briefing paper reviews a federal task force's recommendation for universal depression screening and a clinical trial involving screening in the schools, summarizes past legislation on the topic, and estimates the costs of implementing the Suicide Review Team's suggestion.

USPSTF REVIEW AND RECOMMENDATION

In 2009 and again in 2016, the U.S. Preventive Services Task Force (USPSTF) recommended that all adolescents 12 years of age and older be screened for depression. The group noted that adolescents with major depressive disorder (MDD) typically have functional impairments that affect their school and work performance, as well as relationships with family members and peers.

HISTORY AND ROLE OF THE TASK FORCE

Since 1984, the USPSTF has made recommendations on the effectiveness and use of clinical preventive services. Made up of experts in the fields of preventive medicine and primary care, the group examines peer-reviewed evidence on preventive services and assigns a "grade" to each service reviewed. The grades indicate:

- the relative strength of the evidence on the service;
- the balance of its benefits and harms; and
- the group’s recommendation on whether the service should be provided or offered.

The table below summarizes the grade definitions used by the task force.

Grade	Service Recommendation/Reason	Suggestions for Practice
A	The service is recommended. High certainty found that the net benefit is substantial.	Offer or provide the service
B	The service is recommended. High certainty found that the net benefit is moderate or that moderate certainty exists that the net benefit is moderate or substantial.	Offer or provide the service
C	The service is recommended on a selective basis. At least moderate certainty found that the net benefit is small.	Offer or provide the service for selected patients based on individual circumstances
D	The service is not recommended. Moderate or high certainty found that the service has no net benefit or that the harms outweigh the benefits.	Discourage use of the service
I	Insufficient evidence exists to evaluate the balance of benefits and harms. Evidence is lacking, of poor quality, or conflicting.	Read the clinical considerations and, if the service is offered, ensure patients understand the uncertainty of the balance of benefits and harms.

TASK FORCE CONCLUSIONS

After reviewing evidence related to screening all children and teens for major depressive disorder, the task force concluded that adolescents 12 years of age and older would benefit from screening. However, it concluded that the evidence did not support screening of younger children.

The group gave the service a grade of "B" for adolescents and a grade of "I" for children under 12 years of age.

The task force did not find any studies showing that screening in adolescents improved a youth's health or other outcomes. However, it did find adequate evidence that youth experienced moderate benefits when treated for depressive disorder after detection through screening. In addition, it found no direct evidence of harms of screening.

As a result, the task force recommended that screening be provided for adolescents.

PHYSICIAN GROUP SUPPORT OF SCREENING

The American Academy of Pediatrics also recommends universal screening of patients 12 years of age and older through use of a self-reporting scoring tool. In 2018, the group rated the strength of the evidence in favor of universal screening at a 2 on a scale of 1 to 5, where the strongest evidence is given a score of 1 and the weakest evidence a score of 5.

SCREENING IN THE SCHOOLS: PENNSYLVANIA CLINICAL TRIAL

Between November 2018 and November 2020, 14 high schools in Pennsylvania took part in a randomized clinical trial sponsored by the Milton S. Hershey Medical Center. The clinical trial was conducted to evaluate the effectiveness of universal depression screening as compared to targeted screening, in a school setting.

The study description noted that depression screening occurs in less than 2% of primary care office visits and said the study chose to evaluate screening in a school setting because "compared to medical settings; schools are more likely to regularly engage with adolescents."

THE STUDY GROUPS

Students in the clinical trial were split into two groups. In one group, all students were screened for MDD using an electronic version of the Patient Health Questionnaire-9 (PHQ-9). If they scored a 10 or higher on the screening or scored a 1 or higher on the suicidality question, they were referred to the school's Student Assistance Program for further evaluation. Students in the second group were referred to the Student Assistance Program for evaluation only if they were exhibiting behaviors related to MDD.

If the program confirmed students from either group were in need of intervention, they were referred for follow-up services.

All Pennsylvania schools must have a Student Assistance Program designed to help students overcome barriers to learning, including barriers related to alcohol, drugs, and mental health issues.

THE STUDY RESULTS

In all, 12,909 of 13,171 eligible students took part in the clinical trial. Two percent of the students opted not to participate. Using a random selection method, the researchers split the students nearly evenly into the universal screening group (6,473 students) and the targeted screening group (6,436 students).

The study found that students in the universal screening group were nearly six times more likely to be identified with MDD symptoms, three times more likely to be confirmed by the assistance program as needing follow-up treatment, and twice as likely to initiate treatment for depression.

Key findings included:

- 1,026 of the students in the universal screening group met the criteria for identification of MDD symptoms and were referred to the Student Assistance Program, compared with 200 students out of the targeted screening group who were referred to the program based on the behaviors they exhibited;
- 233 of the students in the universal screening group who were referred to the Student Assistance Program were confirmed to have symptoms warranting follow-up care, compared to 64 students in the targeted screening group; and
- overall, 115 of the students warranting follow-up care participated in at least one service recommended by the assistance program – 80 from the universal screening group and 35 from the targeted screening group.

PAST LEGISLATIVE EFFORTS IN MONTANA

Before its 2016 recommendation for universal depression screening in the schools, the Suicide Mortality Review Team in 2014 had already identified screening in the schools as an intervention that might reduce youth suicides. That prompted legislation in 2015 and every subsequent session to encourage use of depression screening in Montana schools. Bills related to student screening have not passed, but lawmakers have approved other school-based suicide prevention efforts.

MENTAL HEALTH SCREENING LEGISLATION

A bill introduced in 2015 and reintroduced in 2019 and 2021 proposed a grant program to encourage school districts to offer optional mental health screening to students. The bills appropriated $1 million for the program over the biennium.

The 2017 legislation proposed a competitive grant program for school districts to develop school- and district-wide school suicide prevention programs that would include a resiliency curriculum for students in grades 1 through 5 and a suicide prevention curriculum for students in grades 6 through 12. Schools receiving grants would have had the option of conducting universal mental health screenings. The bill would have increased the tax on rental cars by 1% to raise an estimated $2.2 million for the program over the biennium.

All of the bills were introduced in the House and failed to advance to the Senate.

SUICIDE PREVENTION LEGISLATION

Since 2015, lawmakers passed two bills dealing with other aspects of school-based suicide prevention efforts:

- HB 374, approved in 2015, required the Office of Public Instruction (OPI) to develop suicide awareness and prevention training materials for school districts. It also recommended that all school district and OPI employees who work directly with students receive at least two hours of youth suicide awareness and prevention training every five years. The bill originally required that the training be offered, but it was amended to make the training optional.
- HB 381 in 2017 required school trustees to establish suicide prevention and response policies or plans.

COSTS RELATED TO UNIVERSAL SCREENING

The costs of implementing universal screening in the schools could encompass a number of items, including:

- the screening tool used and the number of times during a fiscal year that students are screened;
- the printing and distribution of materials for parents and students;
- staff or contracted time to coordinate the screening events, administer the screening, and follow up on the screening results as needed; and
- any follow-up mental health services that schools choose to provide to identified students.

While the PHQ-9 is free to use, other screening tools may need to be purchased.

IN MONTANA: SCREENING LINKED TO CARE PILOT PROJECT

A Montana group received a suicide prevention grant from DPHHS this fiscal year to conduct universal screening for depression symptoms and other major suicide risk factors in schools in Gallatin, Madison, and Park counties. The Rural Behavioral Health Institute (RBHI) program also links any student identified through the screening as being at high risk for suicide with same-day mental health resources at school. The program uses either clinical staff available through the school or through Shodair Children's Hospital if the school does not have its own clinicians.

Students are screened using not only the validated adolescent version of the PHQ-9 but also with three other validated tools that assess suicide risk and protective factors. Cost of the screening tool varies based on the size of the school. Screenings usually occur during a regularly scheduled class, such as the health class.

The table below shows some of the key costs of implementing the screening portion of that program.

Item	Cost
Screening tool administered twice a year	\$4-\$6 per student
Printed materials for students and parents	\$0.20 per student
Mailing costs (materials sent once per school year)	\$0.40 per student

Parental consent is required for the screenings. Some schools have chosen to screen all students unless parents explicitly state that they don't want their child screened (opt-out approach). Other schools screen students only if parents provide permission (opt-in approach). Participation has been above 90% in schools that take the opt-out approach and has ranged from 40.5% to 83% in schools that have used the opt-in approach. All but one of 394 students screened in fall 2021 completed all four of the assessments; average completion time was under eight minutes.

IN SEATTLE: SBIRT IN THE SCHOOLS

The Seattle school district has been screening students in some middle schools for the past four years using an evidence-based approach known as Screening, Brief Intervention, and Referral to Treatment (SBIRT). The schools use a tool developed by the Seattle Children's Hospital and Tickit Health, a creator of digital health-related programs. The effort is funded by a voter-approved, countywide levy that supports childhood health and safety programs.

The coordinator for the program identified staffing costs as the primary cost. Each participating school has a paraprofessional staff member whose duties include – among other things – preparing information packets for parents, scheduling and administering the screenings, and reviewing results to determine which students need to be referred to school counselors.

POTENTIAL STATEWIDE COSTS

The costs for universal depression screening in Montana schools would depend on factors such as whether:

- the screening is done with a no-cost assessment tool or with a tool that must be purchased;
- a school requires parents to actively choose to have their child participate in the screening or whether the school screens all students unless parents opt out; and
- the school has staff able to prepare for, administer, and review the screenings or must hire staff or contract for those services.

The table below shows the potential two-year costs for screening students twice a year using either a no-cost or a purchased screening tool and an opt-in or opt-out approach. The estimates use the following assumptions:

- 60% of students would be screened under an opt-in approach (based on national studies showing about a 50% participation rate in those programs and the RBHI experience of a 40.5%-83% participation rate);
- 96% of students would be screened under an opt-out approach (based on the Pennsylvania clinical trial, Seattle Public Schools experience, and other studies that have looked at opt-out screenings); and
- a purchased screening tool would average $5 per student.

	No-Cost Screening Tool			Purchased Screening Tool		
Item	**Per-Student Cost**	**Opt-In Cost**	**Opt-Out Cost**	**Per-Student Cost**	**Opt-In Costs**	**Opt-Out Costs**
Screening tool	$0	$0	$0	$5	$471,080	$753,730
Printed informational materials	$0.20	$18,843	$30,149	$0.20	$18,843	$30,149
Mailing costs (sent once)	$0.40	$37,686	$60,298	$0.40	$37,686	$60,298
Total Costs		**$56,530**	**$90,447**		**$527,610**	**$844,178**

Sources:

- "Depression in Children and Adolescents: Screening." Final Recommendation Statement. *U.S. Preventive Services Task Force.* Feb. 8, 2016.
- McCormick, Erin. "The Case for School-Based Depression Screening: Evidence from Established Programs." *Report on Emotional & Behavioral Disorders in Youth.* Volume 9, Number 4. Fall 2009.
- Mental Health Screening Legislation in Montana: HB 383 (2015), HB 265 (2017), HB 186 (2019), and HB 227 (2021).
- "Montana 2016 Suicide Mortality Review Team Report." *Department of Public Health and Human Services.* Undated.
- "Montana Suicide Review Team Summary Report for January 1, 2014 through December 31, 2014." *Department of Public Health and Human Services.* Undated.
- Rural Behavioral Health Institute (RBHI) Screening Linked to Care Suicide Prevention Grant Award:
  - "Scope of Work: Attachment B to Contract No. 22-332-74152-0." DPHHS contract with RBHI.
  - Discussion and e-mails with Julie Anderson, RBHI Implementation Director. Dec. 17, 2021, and Jan. 3, 2022.
  - RBHI Quarterly Report on Screening Linked to Care Pilot Project.
- School-Based Suicide Prevention Legislation in Montana: HB 374 (2015) and HB 381 (2017).
- Seattle Public Schools SBIRT Program: Conversation with Lindsay Bolender, Healthy Schools Coordinator, Seattle Public Schools. Jan. 5, 2022.
- Sehkar, Deepa L., MD, MSC, et al. "Screening in High Schools to Identify, Evaluate, and Lower Depression Among Adolescents. *JAMA Network Open.* Nov. 5, 2021.
- U.S. Preventive Services Task Force website. Available at: https://www.uspreventiveservicestaskforce.org/uspstf/. Accessed Dec. 7, 2021.
- "Universal vs. Targeted School Screening for Adolescent Major Depressive Disorder." Clinical Trial Identifier: NCT03716869. Available at www.clinicaltrials.gov. Accessed Dec. 13, 2021.
- "What is Montana's public school enrollment?" Office of Public Instruction website. Available at https://gems.opi.mt.gov/student-data. Accessed Dec. 6, 2021.