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Daphne Kuo, PhD
Researcher
Tobacco Surveillance and
Evaluation Program

Karen Palmersheim, PhD, MS
Program Director
Tobacco Surveillance and
Evaluation Program

Brenda M. Jennings, MS
ATODA Consultant
Student Services, Prevention
and Wellness Team
Department of Public
Instruction

Steve Fernan, MS
Assistant Director
Student Services, Prevention
and Wellness Team
Department of Public
Instruction

Douglas R. White, MS
Director
Student Services, Prevention
and Wellness Team
Department of Public
Instruction

Tobacco Surveillance and
Evaluation Program
370 WARF
610 N. Walnut Street
Madison, Wisconsin 53726

Phone
(608) 262-2825
Fax
(608) 262-2425

Website
www.medsch.wisc.edu/mep

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School Tobacco Program Assessment Report, 2007-2008

Summary

- In 2007, a total of \$349,771 in school tobacco program funding was provided to 25 projects covering 183 school buildings in 34 districts in Wisconsin. The 2007-2008 school year was the second half of the 2006-2008 funding cycle. The purpose of the funding was to continue to support enhanced implementation of school tobacco programs which followed the Centers for Disease Control and Prevention's *Guidelines for School Health Programs to Prevent Tobacco Use and Addictions*.
- "Peer program and leadership" was identified as the major objective during the entire 2006-2008 funding cycle, as well as during the 2007-2008 school year.
- "Peer-to-peer programs" and "community connections and coalition building" were identified as the top strategies, followed by "curriculum development and implementation" and the "cessation and student assistance program".
- School districts reported approximately 19,568 students received classroom instruction, 20,543 received peer-to-peer services from trained peers and 1,296 received cessation services.
- Mean scores of the school assessments increased in all areas during the overall funding cycle (2006-2008). Activities and efforts increased significantly in the areas of training, cessation, and evaluation. Smaller, non-significant increases were observed in the areas of policy, curriculum, instruction, and family/community.
- During the second half of the funding cycle (2007-2008), mean scores increased significantly in the area of evaluation; small increases were observed for cessation, and curriculum. Thus, most of the observed increase occurred during the first half of the overall funding cycle (2006-2007).
- Small sample size, due to unanswered questions in the assessment questionnaires, affected the reliability of the data and our ability to compare data from baseline to assessment, thereby limiting the utility of the results. Identification of strategies aimed at increasing completion of the assessment questionnaires by funded schools is recommended.
- A direct examination of student smoking behaviors is highly recommended as a method by which to directly assess the effectiveness of the program.

BACKGROUND

The Department of Public Instruction (DPI), in cooperation with the Department of Health Services' Wisconsin Tobacco Prevention and Control Program, administers and oversees the School Tobacco Program Grants. This program allows public school districts and consortia to apply for funds to create, or expand upon, strategies identified as effective by the Centers for Disease Control and Prevention (CDC) in reducing or eliminating youth tobacco use. Research suggests that implementation of the CDC Guidelines in California schools was significantly related to reduced smoking prevalence, increased quit attempts and increased negative expectations and attitudes regarding tobacco among students (Rohrbach et al., 2002). Another study in Oregon found that schools with high or medium levels of implementation of the Guidelines, relative to low implementation schools, had greater decline in 8th graders' 30-day smoking prevalence (Rohde et al., 2001). Thus, the DPI used the CDC Guidelines as the cornerstone of this grant program.

In order to be considered for grant receipt, districts and consortia were required to submit policy and program assessments for each of the respective school buildings in which they intended to provide programming. In school year 2001-2002, 109 school districts and consortia throughout the state applied for grant funding on behalf of the 313 school buildings they served. Forty-six applicant school districts and consortia received first year grant funding, with a total award amount of about \$1.1million. (See Anderson, Moberg and White, 2002, for a detailed report on the baseline data). In school year 2002-2003, the same projects (districts and consortia) were awarded a reduced second year total of approximately \$625,000. In school year 2003-2004, because funding was further reduced, only 11 projects received a total of \$225,000. Since then, the funding has been steady, with twenty-five to thirty school districts receiving funding of approximately \$300,000 annually. In school year 2006-2007, a new run of funding (\$349,771) was distributed to 23 districts and 2 CESAs (Cooperative Educational Service Agencies) – constituting 35 districts in total. The same districts and CESAs were funded (\$349,771) in 2007-2008, which is the school year for the current report.

In addition to providing grant dollars to local school districts, targeted training and technical assistance was provided to schools and communities through ongoing collaboration between the Department of Public Instruction, American Lung Association of Wisconsin, Cooperative Educational Service Agencies (CESAs), and local tobacco free coalitions. Statewide training and technical assistance efforts targeted cessation, youth education programs (including curriculum, instruction, family and community involvement), and staff development as well as policy communication and enforcement.

This report presents findings from analyses that assessed the degree to which funded school districts and buildings had tobacco programs in place, consistent with recommended CDC guidelines, during 2007-2008. Baseline information collected from districts and schools at the end of the first school year (Spring, 2007) were compared to follow-up (year-end) assessments conducted at the end of the second year (Spring, 2008) to assess whether programs improved during the school year. In addition, information is presented on key program objectives, the degree to which those objectives were met, and number of students and families served by the programs.

METHODS

Data: School Building Assessment

The assessment questions were developed from the CDC's *Guidelines for School Health Programs to Prevent Tobacco Use and Addiction* (1994). A total of 58 questions assess the level to which school buildings have elements of quality tobacco education programs and policies in place. Following the CDC's recommendations for ensuring quality school programs that prevent, reduce or eliminate tobacco use, the 58 questions cover seven specific areas: policy, curriculum, instruction, training, family & community involvement, tobacco cessation, and evaluation. There are 17 questions for the construct of policy, 17 for curriculum, 6 for instruction, 4 for training, 7 for family and community, 3 for cessation, and 4 for evaluation.

Response options for each question reflect whether a given program characteristic exists completely ('yes'), exists only to some degree ('somewhat'), or not at all ('no'). For analyses, responses were scored two, one, or zero points, respectively, for each question. Each of the seven assessment areas received a score by calculating the average across the questions within that area. An overall program score was also calculated by averaging across all 58 questions. The higher the score, the more consistent the schools' tobacco programs were with CDC guidelines.

In sum, scores ranged from 0 to 2. A score of "0" would indicate that none of the recommended program elements were in place at the time of assessment, while a "2" would indicate all elements were in place. A score of "1" would indicate that recommended program elements were "somewhat in place". Questions with answers of "don't know" and those that were missing were not included in the analyses.

Sample: Schools (Buildings) Participating in the Tobacco Grant Program in Funded Districts

All applicant school districts are required to complete assessments of their school tobacco prevention programs for all participant school buildings as part of their grant application process. These assessments serve as the baseline for evaluation. In order to evaluate change, funded schools are asked to complete a year-end assessment questionnaire at the end of each year of funding.

A total of 199 schools (buildings) participated in the program during the 2006-2008, 2-year funding cycle. However, not all of the schools participated during both years of the cycle. In addition, some schools did not complete the assessment questionnaires for all of the required time points. Preliminary analysis revealed that 109 schools were funded during both years and completed all three assessments (2006 baseline, 2007 and 2008 year-end assessments).

In order to be included in the current analysis, schools had to answer at least one question for each assessment area in the assessment questionnaire for all three years (i.e., 2006-baseline, 2007 year-end and 2008 year-end). In sum, the resulting sample available for the final analysis included 72 schools. They included 28 elementary schools, 21 middle schools, junior highs or intermediate schools, and 20 high schools. The remaining 3 schools included alternative schools or programs and k-8 schools.

FINDINGS

A. School Assessment 2006-2008

Table 1. Mean Scores and change in scores by school year and assessment areas for 72 schools with reports for all assessment areas from 2006 (baseline) to 2008 (end of funding cycle)

Assessment Area (# of items)	Mean score			Change 2007-08		Change 2006-08	
	2006 (baseline)	2007 (1 st year)	2008 (2 nd year)	Score	<i>p</i> - value	Score	<i>p</i> - value
Policy (17)	1.803	1.872	1.845	-0.027	0.188	0.042	0.114
Curriculum (17)	1.624	1.687	1.739	0.052	0.305	0.114	0.086
Instruction (6)	1.324	1.451	1.399	-0.053	0.294	0.074	0.129
Training (4)	1.012	1.332	1.241	-0.091	0.287	0.229	0.011
Family/community (7)	1.182	1.392	1.295	-0.098	0.132	0.112	0.088
Cessation (3)	0.956	1.162	1.227	0.065	0.494	0.271	0.002
Evaluation (4)	1.020	1.094	1.399	0.306	0.002	0.379	0.000
Overall (58)	1.485	1.593	1.605	0.012	0.736	0.120	0.004

* Paired sample t-tests were used to evaluate whether the change was significant. Bolded font denotes a statistically significant change between 2007 and 2008.

Table 1 shows mean scores and changes in scores for the 72 schools which answered at least one question for each assessment area in the assessment questionnaire for all three years (i.e., 2006-baseline, 2007 year-end and 2008 year-end). The areas of policy, curriculum, and instruction consistently had the highest scores over the entire 2-year funding cycle. By the end of the funding cycle, these three areas, along with evaluation, had the highest scores of the 2007-08 program. Thus, according to the 2008 year-end assessment, policies were most consistent with the CDC Guidelines (mean score = 1.845), followed by curriculum (1.739), instruction (1.399), and evaluation (1.399).

Cessation and training were least consistent with the CDC Guidelines at both baseline and at the 2008 year-end assessment. The mean score across the 72 schools, representing the degree to which training services or programs were in place by the end of the 2007-2008 school year was 1.241. For cessation programming it was 1.227. When it comes to programs that bridge schools with families/communities, the 2008 year-end assessment revealed a mean score of 1.295.

School year 2007-2008 was the end of the funding cycle for 2006-2008 school tobacco program grant. Increases and decreases between the 2007 and 2008 year-end assessment scores were trivial, except in the area of evaluation. The change in mean score for evaluation between 2007 and 2008 was 0.306, revealing a significant increase in the degree to which schools had evaluation built into their tobacco programs (*p*-value = 0.002).

Increases in means scores were noted in all areas between the baseline year and the 2008 year-end assessment. Among the seven areas assessed, significant increases were revealed in training, cessation, and evaluation; that is, 0.229 (*p*=0.011), 0.271 (*p*=0.002), and 0.379 (*p*=0.000), respectively. Smaller, non-significant increases were observed in the areas of policy (0.042), curriculum (0.114), instruction (0.074), and family/community (0.112).

B. General Assessment from School Districts/CESAs

In addition to the assessments conducted at the school building level, funded districts and CESAs were required to provide online summary reports of grant participation at the district level. Thirty-four district reports were obtained for the 2007-2008 school year.¹ Twenty-four of the districts identified peer program/leadership as their major objective. About 47% of the districts considered the objective completely met, and the other 53% considered it partially met. Among the major strategies identified by the districts, “peer-to-peer program implementation” (27 districts), “community connections and coalition building” (21 districts), “curriculum development and implementation” (13 districts), and “cessation and student assistance program” (13 districts) were ranked as the top four, with “parent/family education and outreach” (11 districts) following closely. Though the priority was very similar to that reported in 2007, cessation and communities/coalitions slowly gained importance.

Of the 34 districts completing summary reports, 19 districts mentioned the peer program as the most significant component by which to determine program effectiveness, while 13 mentioned tobacco prevention and reduction. A handful of schools mentioned cessation, curriculum, or policy areas.

In terms of future programmatic expectations, 15 districts expected to continue at the same level while 17 districts expected to continue with the same types of activities, but at a reduced level. Reasons not to continue at the same level included fewer resources in terms of money and staff time.

Most districts used multiple curricula for instruction. The most popular curricula included: Project Alert (10 districts), Project Northland (8 districts), LifeSkills (7 districts), N.O.T (6 districts), T.A.T.U. (5 districts), Tar Wars (5 districts), and Learning Modules in Social Norms in Youth Tobacco (5 districts). An additional 20 curricula were also reported as having been used for instruction.

Regarding evaluation, the weakest area of all, local survey data, including pre-post tests and Online YRBS/search survey, were identified as the top methods for determining whether major objectives were met. The other popular method of evaluation was attendance at activities. Time was identified as the major barrier to evaluating program effectiveness by 28 districts.

The reporting of district activities was much in accordance with the participation numbers. Due to a slight decrease in the number of districts, a slight decrease in the summary figures was expected between 2006-2007 and 2007-2008. But similar to last year, students were greatly benefited by the tobacco program during school year 2007-2008 in a number of areas. Combined, the participating districts reported that a total of 547 students were disciplined under new/revised tobacco policy, 1,002 students were trained in peer-to-peer tobacco program mediation, 20,543 students received peer-to-peer services from trained peers, and 19,568 students received classroom instruction using “curriculum developed, enhanced or purchased through the grant”. The total number of students receiving tobacco cessation services greatly increased from 110 to 1,296. Of these 1,296 students, 154 students were referred to or served by tobacco programs or services “offered for the first time this grant year”.

An additional component of the school tobacco program grants is to provide information and services to parents and family members. During the 2007-2008 grant year, there were 26,282 parents/family members receiving information on tobacco issues, and 566 members

¹ 35 district reports were obtained for the 2006-2007 school year. One district dropped out of the grant program due to personnel change.

receiving services through the program. The total number receiving tobacco cessation services directly or through referral increased from 68 to 234.

Finally, districts were asked to report levels of staff participation in their tobacco programs. A total of 441 staff members were trained, or providing classroom instruction, during year 2007-2008. In addition, 317 staff members attended meetings/activities sponsored by local tobacco coalitions.

LIMITATIONS

The self assessment tool was developed primarily as a planning and needs assessment device for schools. As such, validity and reliability of responses were not issues in the initial development of the tool. The limitations, from an evaluation research perspective, are that the tool is completed as a self- report from individuals or teams in each school, potentially with differential incentives for impression management at baseline (to demonstrate need) and at follow-up (to demonstrate progress). Though at least one quarter of the districts showed no progress in each area, we cannot completely eliminate the possibility of impression management.

In addition, different individuals/teams may have completed the tool at baseline and follow-up – with different response biases inherent in the process. For example, having different staff, with differing standards or expectations, answer the questions at baseline and year-end, may have resulted in some schools or districts having negative outcomes.

Moreover, given the wide range of areas assessed, individuals that answered the questions in the assessment tool might not have knowledge of all areas. For example, some questions, or complete assessment areas, were left unanswered in either the 2006 or 2007 assessment. Thus, for some of the schools, we cannot compare baseline and year-end assessments in all areas of assessment.²

It is also possible that districts and buildings might have focused their funding and activities differently each year.³ The wide distribution of program foci revealed in the district summary reports suggests this possibility. A longer observation of each district or building would allow us to examine this concept. This would require a certain degree of continuity in funding for both districts and schools.

COMMENTS

Overall, the current analysis of recipient schools of the 2006-2008 Tobacco Program grants indicates enhancement of participating schools' tobacco prevention strategies relative to CDC guidelines. In general, the majority of program enhancements occurred during the first year of the funding cycle (2006-2007). With exception of the area of evaluation, less change was observed during the second year of the funding cycle.

² The degree to which our analyses suggest the schools' programs meet CDC guidelines might be overestimated due to missing data. Though we suggested that staff might not know the answers and thus left them unanswered, one might argue that some unanswered questions imply that the staff were not familiar with such characteristics or elements because they were not implemented. Thus, because we only analyzed the answered questions, we may have overestimated the mean scores .

³ Changes in programmatic focus at the district level might contribute to the lack of complete data.

Schools are most consistent with CDC guidelines in their tobacco policies and curricula. To some extent, the schools may be experiencing a ceiling effect in the area of policy – that is, most of the participating schools had already established policies consistent with CDC guidelines before they received the tobacco grant. In other program areas, such as training, family/community and cessation, there is still room for growth.

The current report assessed the degree to which funded districts and participating schools have implemented tobacco programs consistent with CDC guidelines. From the perspective of program development and implementation, these are important issues to assess. However, measuring change in tobacco use among students in the funded districts or schools would provide a more direct measure of program success. To strengthen the evidence and expand our knowledge of program effectiveness, linkage to a database containing information on actual student tobacco use would be needed.

Also, caution should be exercised in interpreting the findings. Due to the small sample size, analysis of the school assessments could not take into account the level of school (elementary, middle, high), or the socioeconomic composition of the community and student body. A larger sample would also be useful in examining how schools' scores in each assessment area might compare to the major objectives set forth by corresponding districts.

Finally, the rapid reduction of the analytical sample size, due to unanswered questions (incomplete data) reinforces the need to re-visit the process of data collection at both the school and district levels.

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