TOBACCO SURVEILLANCE
& EVALUATION PROGRAM
UNIVERSITY OF WISCONSIN
PAUL P. CARBONE
COMPREHENSIVE CANCER CENTER

Program Brief

February 2008

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Support for this report was provided by the Wisconsin Tobacco Prevention and Control Program, Bureau of Community Health Promotion, Division of Public Health, Wisconsin Department of Health and Family Service

School Tobacco Program Assessment Report, 2006-2007

Summary

- In 2006, a total of $349,771 in school tobacco program funding was provided to 25 projects covering 180 school buildings in 35 districts in Wisconsin. The purpose 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.

- The peer program and leadership was identified as the major objective by about 50% of school districts. The peer-to-peer programs and curriculum development and implementation were identified as the top strategies. School districts reported approximately 22,430 students received classroom instruction and 17,081 received peer-to-peer services from trained peers.

- The mean scores were higher in the areas of policy, curriculum, instruction and family and community than in other areas during both baseline and year end assessment.

- Relative to the baseline scores (2006), mean scores for the 2007 school assessment increased in all areas. The activities and efforts in the areas of training (from 0.9 to 1.2), family and community involvement (from 1.1 to 1.3), policy (from 1.8 to 1.9), instruction (from 1.2 to 1.4), and cessation (from 0.9 to 1.1) increased significantly, while those in the areas of curriculum (from 1.6 to 1.7) and evaluation (from 1.0 to 1.1) increased only slightly.

- The small sample size, due to unanswered questions in the assessment questionnaires, significantly reduced the reliability of the data and our ability to compare data from baseline to assessment, thereby limiting the utility of the results. A direct examination of student smoking behaviors is highly recommended, as a better method by which to assess the effectiveness of the program.

BACKGROUND

The Department of Public Instruction (DPI), in cooperation with the Department of Health and Family 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. There is research evidence 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 2001-02, one hundred and nine 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 2002-03, the same projects (districts and consortia) were awarded a reduced second year total of approximately $625,000. In school year 2003-04, because funding was greatly 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 more than $300,000 annually. In school year 2006-07, a new run of funding ($349,771) was distributed to 23 districts and 2 CESAs (35 districts in total). The same districts and CESAs have been funded in 2007-08 as well.

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 buildings and districts had tobacco programs in place, consistent with recommended CDC guidelines, during 2006-2007. Baseline information collected from schools and districts during 2006, were compared to year-end, follow-up assessments conducted during 2007, to assess whether programs improved during the school year. In addition, information on key program objectives, degree to which those objectives were met, and number of students and families served by the programs are presented.

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 CDC's recommendations for ensuring quality school programs that prevent, reduce or eliminate tobacco use, the 58 questions cover seven specific areas: policy, instruction, curriculum 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. Questions were scored according to whether a given characteristic existed completely ('yes'), existed only to some degree ('somewhat'), or not at all ('no'). Responses were scored two, one, or zero points, respectively, for each question. Scores were calculated by averaging across the questions within each of the seven areas. The higher the score, the more consistent the schools' anti-tobacco programs were with CDC guidelines.

The scores can thus range from 0 = "Not in place", 1 = "Somewhat", to a possible high of 2 = "Yes, is in place." A "0" score would indicate none of the elements of an area are in place, while a "2" would indicate all elements of that area are in place. Questions with answers of "don't know" or missing were not analyzed.

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

All applicant school districts are required to complete self 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 school buildings completed the year-end assessment at the end of each year of funding. Since 2006, there were 180 school buildings participating in the program. Among them, 159 buildings turned in the baseline assessment in 2006 and 156 buildings turned in the year-end assessment in 2007. Jointly, 132 buildings from 33 school districts/CESA's did both baseline and year-end assessments. They included 53 elementary, 37 middle schools, junior highs, or intermediate schools, and 35 high schools. Other schools/buildings included alternative schools or programs and k-8 schools. Furthermore, of 132 schools/buildings, 94 had at least one question answered in all assessment areas. They were our analytical sample.

FINDINGS

A. School Assessments

Table 1. Mean scores and change in scores by school year and assessment area for 94 schools with both baseline and year-end assessments in all assessment areas

Assessment Area (# of items)	2006 *(Baseline)*	2007 *(Year-end)*	Change	Statistical Significance*
Policy (17)	1.798	1.878	0.080	**0.000**
Curriculum (17)	1.615	1.688	0.073	0.091
Instruction (5)	1.263	1.414	0.151	**0.000**
Training (4)	0.918	1.300	0.382	**0.000**
Family/community (8)	1.112	1.334	0.222	**0.000**
Cessation (3)	0.938	1.145	0.207	**0.003**
Evaluation (4)	0.992	1.075	0.083	0.304
Overall (58)	1.458	1.578	0.120	**0.000**

* Paired sample t-tests were used to evaluate whether the change was significant. Bolded font denotes a statistically significant change between 2006 and 2007.

Table 1 shows mean scores and change in scores of 94 participating schools in school year 2006-07. The mean scores of the year-end assessments were higher than the baseline scores in all areas. Similar to previous findings, the overall strengths of the school grant program have been in the areas of policy, curriculum, and instruction. In the 2006 baseline assessments, we found that school policies were most consistent with the CDC Guidelines (90% of the possible score; mean score = 1.798), followed by curriculum (82%; 1.615) and instruction (63%; 1.263). Training, cessation and evaluation were the least consistent in the baseline assessment; that is, less than 50% of the 94 schools reported having any of the services or programs in place. For example, 46% of schools reported having staff trained for any tobacco related activities, slightly less than 50% evaluated their school tobacco programs or student smoking behaviors in the school, and 47% had implemented cessation programming. Thus, there was a great deal of room for improvement in some of the guideline areas.

Results from the year-end assessments for the 2006-07 school year showed that the level of consistency increased in all areas. Of the possible total score in each area, the year-end scores were at the following levels of consistency: 94% for policy, 84% for curriculum, 71% for instruction, 65% for staff training, 67% for family and community participation, 57% for cessation, and 54% for evaluation. The area of staff training made the most progress, from 0.918 to 1.300, constituting a change of 0.382. It was followed by the area of family/community involvement (from 1.112 to 1.334; representing a change of 0.222), and cessation (from 0.938 to 1.145, representing a change of 0.207). The p-values for each of the above changes were significant at less than 0.05. In addition, statistically significant changes were also noted in areas of policy (from 1.798 to 1.878; Δ=0.080) and instruction (from 1.263 to 1.414; Δ=0.151). The improvements in curriculum (0.073) and evaluation (0.083) were not statistically significant.

In summary, the participating school buildings of funded districts and CESA's increased their implementation of programs in all areas during the first year of the current funding cycle, though, increases in the areas of curriculum and evaluation were not as great as other areas.

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. Twenty-five districts identified peer program/leadership as the major objective for funding year 2006-07. About 50% of the districts considered the objective completely met, and the other 50% considered it partially met. Among three major strategies identified by the districts, "peer-to-peer program implementation", "curriculum development and implementation", "parent and family education and outreach", and "community connections and coalition building" were ranked as the top four, with "cessation and student assistance program" and "policy development and enforcement" following closely. Of 35 districts, 20 districts mentioned the peer program as the most significant component to determine program effectiveness, while 13 mentioned tobacco prevention and reduction, and only a handful of schools mentioned cessation, curriculum, or policy areas.

When asked about future programmatic expectations, 13 districts expected to continue at the same level while 21 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.

In terms of evaluation, the weakest area of all, local survey data was identified as the top method for determining whether major objectives were met. Other popular methods of evaluation included attendance at activities, referral and violation reports, and using YRBS data. Time was identified as the major barrier to evaluating program effectiveness.

The report of district activities was much in accordance with the participation numbers. Students were greatly benefited by the tobacco program during school year 2006-07 in some areas. Combined, the participating districts reported that a total of 1,814 students were disciplined under new/revised tobacco policy, 940 students were trained in peer-to-peer tobacco program mediation, 17,081 students received peer-to-peer services from trained peers, and 22,430 students received classroom instruction using "curriculum developed, enhanced or purchased through the grant". However, there were only 110 students served by cessation programs, and 73 students referred or served by "new tobacco programs or services".

An additional component of the school tobacco program grants is to provide information and services to parents and family members. The total number of parents/family members receiving information on tobacco issues during the 2006-07 school year was 27,678; the total number receiving services through the program was 1,070; the total number receiving tobacco cessation services directly or through referral was 68.

Finally, districts were asked to report levels of staff participation in their tobacco programs. A total of 346 staff members were trained, or providing classroom instruction, in 2006-07. In addition, 316 staff member 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 the 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 who answered the tool might not have knowledge of all areas. For example, some questions, or areas of questions, 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.[1]

It is also possible that districts and buildings might have focused their funding and activities differently each year.[2] The wide distribution of program foci from the district summary report suggests this possibility. Thus, a longer observation of each district or building is critical to assess the outcomes. This would require a certain degree of continuity in funding for both districts and schools.

[1] The problem of missing reports might create over-estimating the implementation. Though we suggested the staffs might not know the answers and thus left them unanswered, one might argue that some unanswered questions might imply that the staffs were not familiar with such characteristics or elements because they were not existing in their programs. Thus, while we only analyzed the answered questions, we overestimated the mean scores and the progress.

[2] That might contribute to the problem of incomplete data as well.

COMMENT

In general, the current analyses on recipient schools of the 2006-07 Tobacco Program grants indicate significant improvement of school tobacco prevention strategies following CDC guidelines. However, the current report only assessed the process of implementation of tobacco programs in funded districts and participating schools. 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 on the effectiveness of the program, linkage to a large 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 schools (elementary, middle, high), or the major objectives set by the district, let alone socioeconomic composition of the community and student body. Second, the rapid reduction of the analytical sample size, due to unanswered questions (incomplete data) suggests that the process of data collection at both the school and district levels should be re-visited. Finally, the influence of community socioeconomic profiles and available funding (per student or per school) could be analyzed if a sizeable sample could be obtained.

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ACKNOWLEDGEMENT

Support for this report was provided by the Tobacco Prevention and Control Program of the Wisconsin Department of Health and Family Services, Division of Public Health.