School Tobacco Program Assessment Report, 2008-2009

Summary

- In 2008, a total of $355,389 in school tobacco program funding was provided to 33 districts, in Wisconsin. The 2008-2009 school year was the first year of a new funding cycle. The purpose of the funding is to support the enhancement of tobacco prevention program development and implementation in Wisconsin schools, following the Centers for Disease Control and Prevention’s Guidelines for School Health Programs to Prevent Tobacco Use and Addictions.

- “Peer program and leadership” was the most commonly identified major objective during the 2008-2009 funding cycle.

- “Peer-to-peer programs” and “curriculum development and implementation” were identified as the top strategies, followed by “community connections and coalition building”.

- School districts reported approximately 24,654 students received classroom instruction, 22,740 received peer-to-peer services from trained peers, and 1,927 received cessation services.

- Mean scores of the school assessments increased in all program areas between baseline assessment and year-end assessment during the 2008-2009 funding cycle. Activities and efforts increased significantly in the majority of areas (policy, curriculum, instruction, family/community, cessation, and evaluation). A smaller, non-significant increase was observed in the area of training.

- The area of policy was most consistent with CDC Guidelines at both baseline and year-end assessment.

- 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.

- Strategies aimed at increasing completion of the assessment questionnaires have been developed. Unfortunately, reductions in state-level tobacco funding prohibit the continuation of the school tobacco program.

- In addition, a direct examination of student smoking behavior is highly recommended as a method by which to directly assess the effectiveness of the program, if future funding allows for re-instatement 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 $1.1 million. (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 2008-2009, a new run of funding ($355,389) was distributed to 33 districts. That 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 2008-2009. Baseline information collected from districts and schools at the end of the first school year (Spring, 2008) were compared to follow-up (year-end) assessments conducted at the end of the next academic year (Spring, 2009) 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.

One hundred and twenty-six schools from 33 districts turned in the baseline assessment, and 131 schools from 31 districts turned in the year-end assessment.\(^1\)\(^,\)\(^2\) Not all schools and districts that completed the baseline assessment completed the year-end assessment, and vice versa. In sum, a total of 104 schools (buildings) that participated in the program during the 2008-09 funding cycle completed both assessments.\(^3\) The 104 schools were from 29 school districts.

\(^1\) There were actually 34 districts turning in the baseline assessment questionnaires. However, one funded district turned in an aggregate report on all schools and thus the baseline assessments of its schools could not be counted toward the 126 schools.

\(^2\) Two districts turned in baseline assessments for their schools, but none of the schools from these districts turned in their year-end reports. The 131 school buildings included several schools from the district which turned in an aggregate assessment for grant application (baseline assessment).

\(^3\) That is, 22 school buildings had baseline, but not year-end, assessments; 27 buildings had year-end but not baseline assessments. The latter included those schools from the district which turned in an aggregate baseline assessment.
In order to be included in the current analysis, schools also had to answer at least one question for each assessment area in the assessment questionnaires. In sum, the resulting sample available for the final analysis included 87 schools (24 districts). They included 27 elementary schools, 30 middle schools, junior highs or intermediate schools, and 22 high schools. The remaining 8 schools included alternative schools or programs, grade 6-12, and k-8 schools.

**FINDINGS**

**A. School Assessment 2008-2009**

Table 1. Mean scores and change in scores by school year and assessment areas for 87 schools with reports for all assessment areas from 2008 (baseline) to 2009 (year-end)

<table>
<thead>
<tr>
<th>Assessment Area</th>
<th>2008 (baseline)</th>
<th>2009 (year-end)</th>
<th>Score</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy (17)</td>
<td>1.794</td>
<td>1.864</td>
<td>0.070</td>
<td><strong>0.010</strong></td>
</tr>
<tr>
<td>Curriculum (17)</td>
<td>1.582</td>
<td>1.779</td>
<td>0.197</td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td>Instruction (6)</td>
<td>0.960</td>
<td>1.264</td>
<td>0.305</td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td>Training (4)</td>
<td>1.329</td>
<td>1.387</td>
<td>0.058</td>
<td>0.361</td>
</tr>
<tr>
<td>Family/community (7)</td>
<td>1.070</td>
<td>1.331</td>
<td>0.261</td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td>Cessation (3)</td>
<td>1.035</td>
<td>1.345</td>
<td>0.310</td>
<td><strong>0.001</strong></td>
</tr>
<tr>
<td>Evaluation (4)</td>
<td>0.953</td>
<td>1.346</td>
<td>0.393</td>
<td><strong>0.000</strong></td>
</tr>
<tr>
<td><strong>Overall (58)</strong></td>
<td><strong>1.451</strong></td>
<td><strong>1.629</strong></td>
<td><strong>0.178</strong></td>
<td><strong>0.000</strong></td>
</tr>
</tbody>
</table>

* Paired sample t-tests were used to evaluate whether the change was significant. Bold font denotes a statistically significant change between 2008 and 2009.

Table 1 shows mean scores and changes in scores for the 87 schools which answered at least one question for each assessment area in the assessment questionnaire at both baseline and year-end. The areas of policy, curriculum, and training had the highest scores during the baseline assessment. At the end of the funding year, these three areas still had the highest scores of the 2008-09 program. Thus, according to the 2009 year-end assessment, policies were most consistent with the CDC Guidelines (mean score = 1.864), followed by curriculum (1.779), and training (1.387).

Instruction and evaluation were the least consistent with the CDC Guidelines at the time of baseline assessment (0.960 and 0.953). According to the 2009 year-end assessment, instruction remained the weakest area with a mean of 1.264, while evaluation advanced to the middle of all 7 areas with a mean of 1.346. The mean scores for cessation, family/community, and training in 2009 were 1.345, 1.331, and 1.387, respectively. The overall mean score, representing the degree to which training services or programs were in place across the 87 schools by the end of the 2008-2009 school year, was 1.629.

Increases between 2008 baseline and 2009 year-end assessment scores were significant in all program areas except training. That is, significant increases were revealed in policy,

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4 Five districts gave invalid answers, such as “don’t know”, or did not complete some sections.
B. General Assessment from School Districts

In addition to the assessments conducted at the school building level, funded districts were required to provide online summary reports of grant participation at the district level. Thirty-three district level reports were obtained for the 2008-09 school year. Nineteen of the districts identified peer program/leadership as their major objective. About 26% of the districts (n=9) considered the objective completely met, and the other 71% (n=25) considered it partially met. Among the major strategies identified by the districts, “peer-to-peer program implementation” (29 districts), and “curriculum development and implementation” (22 districts) were ranked as the top two, with “community connections and coalition building” (17 districts), “cessation and student assistance program” (13 districts) and “parent/family education and outreach” (13 districts) following closely.

In terms of future programmatic expectations, 15 districts expected to continue at the same level while 17 districts expected to continue 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 Northland (9 districts), LifeSkills (9 districts), Tar Wars (9 districts), Project TNT (8 districts), Project Alert (7 districts), N.O.T (7 districts), and T.A.T.U. (7 districts). An additional 31 curricula were also reported as having been used for instruction.

Regarding evaluation, attendance was identified as the most commonly used method for determining whether major objectives were met (23 districts), with local survey data (including online YRBS/search survey [17 districts] and pre-post tests [16 districts]) being the next most popular methods. Of the 35 districts completing summary reports, 18 districts mentioned the peer program as the most significant component by which to determine program effectiveness, while 11 mentioned curriculum and 8 mentioned tobacco prevention/reduction. A handful of schools mentioned cessation or policy areas. Time was identified as the major barrier to evaluating program effectiveness (25 districts). The majority of additional write-in comments regarding major barriers could be categorized as either time (scheduling) issues or limitations related to money/resource. One school mentioned a lack of returned parental consents as a key barrier to evaluating students through survey data.

The reporting of district activities was much in accordance with the participation numbers. Similar to past funding cycles, students were greatly benefited by the tobacco program during the 2008-2009 school year in a number of areas. Combined, the participating districts reported that a total of 732 students were disciplined under their new/revised tobacco policy, 1,480 students were trained in peer-to-peer tobacco program mediation, 22,740 students received peer-to-peer services from trained peers, and 24,654 students received classroom instruction using “curriculum developed, enhanced or purchased through the grant”. Eight hundred and

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5 Not all districts answered all of the survey questions. In addition, some of the districts gave more than one answer to some of the questions. Thus, totals may not add up to 100% of the sample (N=33).
fifty-three students received existing tobacco cessation services and 1,074 received newly offered cessation services.

An additional component of the school tobacco program grants is to provide information and services to parents and family members. During the 2008-2009 grant year, there were 29,649 parents/family members receiving information on tobacco issues, and 585 parents/family members receiving services through the program. The total number receiving tobacco cessation services directly or through referral was 102.

Finally, districts were asked to report levels of staff participation in their tobacco programs. A total of 497 staff members were trained, or providing classroom instruction, during year 2008-09. In addition, 359 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).

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 in the assessment tool, individuals that answered the questions might not have knowledge of all areas. For example, some questions, or complete assessment areas, were left unanswered in either the 2008 or 2009 assessment. Thus, for some of the schools, we cannot compare baseline and year-end assessments in all areas of assessment.

Funded districts and buildings might have focused their funding and activities differently each year. 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.

The continuity in participating schools was one of the major causes of small sample size and inefficient assessment. For the 2008-09 funding cycle, we lost more than 40 school buildings in our data due to schools reporting only the baseline or the year-end assessment. This discontinuity was more problematic for small districts than for big districts. To resolve this issue, all school buildings should be required to complete baseline assessment questionnaires for

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6 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.

7 Changes in programmatic focus at the district level might contribute to the lack of complete data.
the grant application process. Reasonably, only schools that actually participated in the program were required to complete the year-end assessment questionnaires.

**COMMENTS**

Overall, the current analysis of recipient schools of the 2008-09 Tobacco Program grants indicates enhancement of participating schools’ tobacco prevention strategies relative to CDC guidelines. Program enhancements occurred in all areas except training.

Participating schools made the most progress in the areas of evaluation, cessation and instruction. However, they are most consistent with CDC guidelines in the areas of tobacco policy and curriculum. 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.

The current report assessed the degree to which funded districts and participating schools have implemented tobacco programs consistent with CDC guidelines. These are important issues to assess from the perspective of program development and implementation. However, measuring change in tobacco use among students in the funded districts or schools would provide a more direct measure of program success. Over time, an increasing number of districts reported to have adopted external tools, such as state or local surveys, to assess program effectiveness. To help individual schools and districts evaluate their own efforts, encouraging the use of external surveys or assessments should be continued. To strengthen the evidence on program effectiveness, linkage to a database containing information on actual student tobacco use would be needed. A pilot study had been planned by which to assess tobacco use over time among youth in schools that participate in the School Tobacco Grants Program that also participate in the state’s Youth Risk Behavior Survey (YRBS). However, recent statewide tobacco program funding reductions have precluded the completion of this study.

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, there are potential biases due to unanswered questions and unmatched school buildings between baseline and year-end assessments. The process of data collection at both the school and district levels has been re-evaluated. Accordingly, the assessment tool has been revised and improved. Unfortunately, due to the severity of the aforementioned budget reductions, the school tobacco grant program will not be continued during school year 2009-2010. Hopefully, funding for this program will be re-issued, and future evaluations of the program will reflect the assessment tool revisions in terms of improved data quality. Moreover, future reconsideration of linking the School Tobacco Grants Program evaluation findings to behavioral data from the YRBS would greatly contribute our knowledge in the area of youth tobacco prevention and control.
ACKNOWLEDGEMENTS

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REFERENCES


